



2016 Post-Closure Site Monitoring Report

Landfill and Resource
Recovery (L&RR)
Superfund Site
North Smithfield,
Rhode Island

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L&RR Superfund Site
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1. INTRODUCTION

This 2016 Post-Closure Site Monitoring (PCSM) Report documents Post-Closure Operation and Maintenance (O&M) activities conducted by the Performing Settling Defendants at the Landfill and Resource Recovery (L&RR) Superfund Site (the Site) located in North Smithfield, Rhode Island. A Site Plan is provided as Figure 1. This PCSM Report covers the reporting period from May 2015 through April 2016.

This Report has been prepared in accordance with the requirements of the Consent Decree and Remedial Design/Remedial Action (RD/RA) Statement of Work (SOW) as indicated in the table below.

Post-Closure Site Monitoring Report Requirements, Specified in the Consent Decree and RD/RA SOW	Report Section Reference
a. Map of the Site showing sample locations.	Figure 1, Site Plan
b. Tabular representation of laboratory results by each media including comparison with any standard levels, with exceedances of maximum contaminant levels (MCLs) and other Performance Standards highlighted.	Section 3. Annual Groundwater and Surface Water Monitoring; Tables 3 and 5
c. Laboratory results on a computer disc in a spreadsheet file such as Excel.	Section 3. Annual Groundwater and Surface Water Monitoring; Tables 3 and 5
d. Data validation packages.	Section 3.5 Data Validation; Appendices B and C
e. Interpretation of maintenance activities completed.	Section 2. Landfill Inspection and Maintenance
f. Inspection reports.	Section 2. Landfill Inspection and Maintenance; Appendix A
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h. Explanation of problems encountered in the field and measures taken to mitigate the problems.	Section 5. Problems Encountered
i. Activities planned for the next reporting period.	Section 6. Activities Planned for Next Reporting

2. LANDFILL INSPECTION AND MAINTENANCE ACTIVITIES

Site visits were conducted to identify corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, flare stack operation, and gas collection system. Site visits were conducted on a monthly basis through August 2015 prior to transitioning to a quarterly frequency after September 2015. This modification was based on a Request to Modify Gas Monitoring and Well Field Tuning Frequency dated May 26, 2015 and U.S. Environmental Protection Agency (USEPA) approval thereafter on September 10, 2015.

These visits also included a complete round of monitoring for gas at wells designated as W-1 through W-18 and perimeter probes designated as GP-1 through GP-6, GP-8, GP-1R, and GP-4R on Figure 1. Monitoring at perimeter probes GP-1 and GP-4 ceased in November 2015. The compliance points for these locations were replaced with GP-1R and GP-4R. Compliance monitoring results were summarized in monthly monitoring reports and inspection logs submitted to the USEPA and Rhode Island Department of Environmental Management (RIDEM). Copies of the monthly monitoring reports for May 2015 through August 2015 and quarterly monitoring reports for November 2015 through March 2016 are presented in Appendix A. Please note that for the current reporting period, reports between August 2015 and March 2016 are being submitted concurrently with the PCSM report.

Highlights of the monthly/quarterly reports for May 2015 through April 2016 include the following:

- During flare operation, the flare inlet flow rate, temperature, and methane level have fluctuated in comparison to historic results. This variability is attributed to decreasing methane levels and overall diminished gas yield from the landfill. A summary of the flare inlet flow rate, temperature, and methane level data collected during this reporting period are summarized in the following table:

	Inlet Flow Rate (cfm)	Temperature (deg. F)	Methane Level (%)
Minimum	382	1,782	26.9
Maximum	461	1,812	41.1
Average	421	1,797	32.2

- The flare continues to operate using a timed on-off-on cycle throughout the reporting period with the following exceptions, including reason for flare shutdown and actions taken provided:
 - May 18 through June 2, 2015: issues with the flare detection sensor; repaired on June 2, 2015.
 - June 2, 2015 through February 2, 2016: flare operated continuously on a 4 days on, 3 days off cycle.
 - February 2 through February 24, 2016: power outage caused extended shutdown. On February 24, 2016 the flare was restarted.
 - February 24 through April 2, 2016: flare operated continuously on a 4 days on, 3 days off cycle.
- Bi-annual flare inspections were conducted on May 11, 2015 and December 7, 2015. During these visits, a representative from Woodard & Curran conducted an inspection of the flare, made necessary adjustments, and provided equipment parts.
- Perimeter compliance probes are monitored for methane, carbon dioxide, and oxygen levels during monthly and quarterly inspections. The monitoring network included perimeter probes GP-1 through GP-6, GP-8, GP-1R, and GP-4R until November 2015 when GP-1 and GP-4 ceased monitoring (refer to section 4.5). Methane levels less than 1.25% in each perimeter probe indicate compliance. These results are summarized in monthly monitoring reports submitted to USEPA and RIDEM (Appendix A).

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- From May 2015 through March 2016, 8,930 gallons of condensate were pumped out by US Ecology (formerly Environmental Quality Company) and properly disposed at New Stream (MAC300005808) in Attleboro, Massachusetts and Environmental Compliance Corporation (MAD062179890) in Stoughton, Massachusetts. Manifest copies are attached to the monthly reports in Appendix A.
 - Annual flare inlet testing was conducted on November 12, 2015, and sample results were compared to the results of flare inlet sampling from December 2009, February 2014, and December 2014. It is anticipated the 2016 flare inlet test will be conducted in fall 2016.

These activities are discussed in further detail in Section 4.

3. ANNUAL GROUNDWATER AND SURFACE WATER MONITORING

The 2016 Annual Groundwater and Surface Water Monitoring event occurred on April 5, 2016. Sampling was conducted by Geological Field Services, Inc. (GFS) of Salem, Massachusetts in accordance with the approved monitoring program for the Site as specified in the Post-Closure O&M Plan (*de maximis* Inc., September 1996) for the Site and the Sampling and Analysis Plan (SAP) submitted to the USEPA on March 7, 2014. Details regarding the water level measurements, groundwater sampling, and surface water sampling and a discussion of the analytical results are provided in the following sections. The sampling locations are depicted on Figure 1. The laboratory analytical report is included in Appendix B.

3.1 WATER LEVEL MEASUREMENTS

On April 5, 2016 prior to groundwater sampling activities, GFS performed a comprehensive round of water level measurements from 19 monitoring wells. Measurements were collected using an electronic interface probe measured to the nearest 0.01 foot from the top of the designated measuring point. Attempts were also made to measure the depth to the bottom of each monitoring well, however, in several wells the dedicated pump could not be removed preventing the interface probe from reaching the well bottom. The water level measurements, provided on Table 1, were used to establish groundwater flow direction at the Site. Figure 2 presents the groundwater elevation contours for the shallow overburden, deep overburden, and bedrock aquifers using the April 5, 2016 measurements.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected from seven monitoring wells identified as MW-201, MW-202, MW-102A, MW-103A, MW-104A, CW-5B, and CW-7B¹ as outlined in the Post-Closure O&M Plan groundwater monitoring program. The sampling locations are provided on Figure 1.

Groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs), total and dissolved metals, and the following inorganic analyses: ammonia, chloride, biochemical oxygen demand, and chemical oxygen demand. During the 2016 event, samples were also submitted for low-level 1,4-dioxane analysis (using selective ion monitoring [SIM]) as described in the 2014 SAP. Table 2 presents a detailed list of field parameters and laboratory analyses and methods.

3.2.1 Sample Collection

The monitoring wells were purged and sampled by GFS using the *EPA Region 1 Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*, Revision 3 (January 19, 2010). Prior to purging, the groundwater level in each monitoring well was measured to the nearest 0.01 foot using an electronic interface probe. The depth to water and historical well depth measurements were used to approximate the volume of standing water in each well.

Monitoring wells MW-201, MW-202, MW-102A, MW-103A, MW-104A, and CW-5B were purged using dedicated bladder sampling pumps and dedicated high-density polyethylene (HDPE) tubing. Monitoring well CW-7B was

¹ Since 2009, monitoring well CW-7B was sampled in place of CW-7A. According to the 2009 Annual Post-Closure Monitoring Report prepared by O&M, Inc., "A sample could not be collected from CW-7A due to failure of the dedicated sampling pump and the inability to remove the pump from the well. Therefore, per a recommendation from USEPA, a sample was collected from CW-7B."

purged and sampled using a Durham Geoslope bladder pump that was decontaminated prior to introduction to the well and following sample collection. Groundwater samples collected for dissolved metals were field filtered using a 0.45-micron in-line filter prior to preservation. Field measurements (temperature, specific conductivity, dissolved oxygen, pH, turbidity, and oxidation-reduction potential) were measured using a calibrated hand-held water quality meter (i.e., YSI-556 meter) as purging progressed. At the end of the sampling day, the equipment calibration drift was checked with the same standards used during the morning calibration. Groundwater samples were packed on ice and hand delivered to Alpha Analytical Laboratories (Alpha) on April 5, 2016 with a chain-of-custody.

The field data collected during purging was recorded on log sheets presented in Appendix C.

3.2.2 Groundwater Analytical Results

A summary of validated analytical data from the 2016 annual monitoring event are presented in Table 3, and discussed in further detail below. Analytical results from annual sampling events since 2006 are presented in Appendix D. Select analytes have been incorporated into a series of trend graphs for monitoring wells MW-104A, MW-102A, and CW-5B, corresponding to the period from 2009-2016. These graphs, provided in Appendix E, demonstrate improved or stable groundwater quality for select analytes over time.

The list of VOCs detected in groundwater remains comparable to those encountered during previous years of monitoring, however the magnitude of select analytical detections has reduced significantly at select locations. Improving groundwater quality, particularly in the deeper aquifer zone, verifies on-going attenuation mechanisms following steady-state conditions referenced in the Post-Closure O&M Plan (*de maximis, Inc.*, 1996). Concentrations of VOCs were detected as follows: 1,4-dioxane (four wells); t-butyl alcohol, and tetrahydrofuran (three wells); 1,4-dichlorobenzene, benzene, chlorobenzene, dichlorodifluoromethane, ethyl ether, tetrachloroethene, and naphthalene (two wells); 1,2-dichlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, trichloroethene, vinyl chloride, chloroethane, isopropylbenzene, and trans-1,2-dichloroethene (one well). In addition, total metals were detected in each of the seven monitoring wells and dissolved fractions of metals were detected at six locations.

These results were also compared to applicable MCLs. In general, concentrations of select analytes are below MCLs with the following exceptions:

- Vinyl chloride was reported at a concentration of 5.2 micrograms per liter ($\mu\text{g/L}$) in monitoring well MW-102A (duplicate result 5.3 $\mu\text{g/L}$) exceeding the MCL of 2 $\mu\text{g/L}$. Concentrations of vinyl chloride in this monitoring well have exceeded the MCL since May 2006 with concentrations ranging from 4.56 to 23 $\mu\text{g/L}$. Concentrations of vinyl chloride were reported at 10.2 $\mu\text{g/L}$ or less in this monitoring well since May 2010 and continue to decline in comparison with pre-2006 levels.
- Total and dissolved arsenic were reported at concentrations exceeding the MCL of 10 $\mu\text{g/L}$ at MW-102A and MW-104A. For MW-102A, the concentration of dissolved arsenic was 14.7 $\mu\text{g/L}$. These concentrations have remained consistent since May 2006 ranging from 9.0 to 14 $\mu\text{g/L}$ (total) and 9.8 to 16 $\mu\text{g/L}$ (dissolved). MW-104A contained concentrations of total and dissolved arsenic of 88 $\mu\text{g/L}$ and 68.1 $\mu\text{g/L}$, respectively. While the concentration of dissolved arsenic in MW-104A has declined since 2015, the concentration of total arsenic, as well as total fractions of other metals (discussed below), has remained elevated in 2016. Elevated concentrations of total metals may be attributed to the turbid condition of the groundwater at the time of sampling (526 Nephelometric Turbidity Units [NTUs]; Appendix C). It should be noted, however, that samples collected from surface water locations SW-10 and SW-16, located downgradient of MW-104A, also contained detectable concentrations of arsenic (refer to Section 3.3). This could be indicative of the migration of subsurface arsenic which is supported by the reducing geochemical conditions (refer to field parameters reported in Appendix C). Previously, concentrations of arsenic in monitoring well MW-104A had declined since May 2006 ranging from 22 to 140 $\mu\text{g/L}$ (total) and <18 to 100 $\mu\text{g/L}$ (dissolved).

A comparison of the reported concentrations of total versus dissolved metals (including arsenic, cadmium, lead, and manganese) was also conducted. Similar to historic sampling events, concentrations of dissolved metals are consistent with concentrations of total metals throughout the Site with the exception of concentrations of total metals in monitoring well MW-104A that are higher than dissolved concentrations, discussed above.

3.3 SURFACE WATER SAMPLING

Surface water samples were collected by GFS on April 5, 2016 from six locations identified as SW-5, SW-8, SW-10, SW-16, LCH-3, and LCH-5. The sampling locations are shown on Figure 1. Similar to the groundwater monitoring, samples from each surface water location were also submitted for laboratory analysis of low-level 1,4-dioxane in addition to routine annual monitoring analyses of VOCs, total and dissolved arsenic, and chloride. Table 2 outlines a list of the laboratory analyses, including analytical method, and field parameters tested at each sample location.

3.3.1 Sample Collection

Surface water samples were collected as close as possible to the location as shown on Figure 1 using a peristaltic pump with dedicated polyethylene tubing for each sample location. Field parameters (temperature, specific conductivity, dissolved oxygen, pH, and turbidity) were measured at each sample location. Surface water samples collected for dissolved metals analysis were field filtered through a 0.45-micron filter prior to preservation. Samples were packed on ice and delivered to Alpha on April 5, 2016 with a chain-of-custody. Field parameters measured were recorded on field sheets provided in Appendix C.

3.3.2 Surface Water Analytical Results

A summary of the surface water analytical data from the 2016 annual monitoring event is presented in Table 4 and discussed in further detail below. Consistent with historic sampling results, concentrations of VOCs were detected as follows: 1,4-dioxane (five locations); t-butyl alcohol (four locations); ethyl ether, 1,4-dichlorobenzene, and tetrahydrofuran (two locations); and benzene, chlorobenzene, chloroethane, and isopropylbenzene (one location). In addition, chloride was detected at six sampling locations and arsenic was detected at three locations (dissolved) and two locations (total).

The 2016 surface water analytical results were compared to the Freshwater Acute or Chronic Aquatic Life Criteria and the Human Health Criteria for Consumption of Aquatic Organisms in general accordance with the RIDEM Ambient Water Quality Criteria and Guidelines included in the Water Quality Regulations July 2006, amended December 2010. Concentrations of metals or VOCs detected in surface water were below these criteria, with the following exceptions:

- Concentrations of dissolved arsenic exceeded the Human Health Criteria for Consumption of Aquatic Organisms standard of 1.4 µg/L at surface water locations SW-16 (3.2J µg/L), SW-10 (3.9J µg/L) and SW-8 (3.1J µg/L).
- Concentrations of total arsenic exceeded the Human Health Criteria for Consumption of Aquatic Organisms standard of 1.4 µg/L at surface water locations SW-16 (3.0J µg/L) and SW-8 (159 µg/L).

A comparison of the reported concentrations of total versus dissolved arsenic was also conducted. Similar to historic sampling events, concentrations of total metals are generally greater than, or equivalent to, concentrations of dissolved metals throughout surface water.

No other constituents were reported at concentrations exceeding the RIDEM water quality criteria in surface water during the 2016 sampling event.

3.4 QUALITY CONTROL SAMPLES

The following quality control samples were collected as part of the groundwater and surface water monitoring activities:

- A matrix spike and matrix spike duplicate (MS/MSD) were collected from monitoring well CW-5B.
- A duplicate sample was collected from monitoring well MW-102A.
- An equipment blank was collected from all non-dedicated sampling equipment and submitted.
- A trip blank accompanied sample containers during shipment and were submitted for analysis of VOCs and 1,4-dioxane.

3.5 DATA VALIDATION

Analytical data collected during the 2016 monitoring event were validated by Data Check as outlined in the March 2014 SAP. Data Check performed a Tier I Plus validation in accordance with the USEPA New England Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (USEPA, 2013). The validation included a review of all laboratory and field quality control samples for a check of: sample custody; sample preservation; analytical holding times; surrogate recoveries; detected results for trip blank samples; calculated relative percent differences (comparing primary and duplicate samples); MS/MSD results, and laboratory control sample results.

Based on the outcome of the validation, data qualifiers were applied to reported analyte concentrations to indicate uncertainty or interference. These qualifiers will be retained on future data tabular summaries for use in project decisions. In general, criteria for data completeness were met for the laboratory data packages associated with the 2016 monitoring event. Exceptions are described in the validation reports included in Appendix B.

4. ADDITIONAL ACTIVITIES FOR THIS PERIOD

This section discusses any additional activities conducted at the Site between May 2015 and April 2016.

4.1 PART-TIME FLARE OPERATION

To optimize flare operation and sustain active gas removal and thermal destruction, it was recommended that the gas collection and treatment system be operated at a timed “on-off-on” cycle. Subsequently, the flare was reprogrammed to operate with a 4-days-on, 3-days-off schedule beginning on January 15, 2015. To date, the system has been successful at achieving regulatory compliance in the soil gas compliance probes while operating in a part-time mode of operation. Based on the continued success of system operation, a request was sent to the USEPA on May 26, 2015 to reduce the frequency of gas probe monitoring and well field tuning to quarterly intervals (March, June, September and December). Quarterly intervals of the gas probe monitoring and well field tuning commenced in November 2015.

4.2 GAS PROBE WELLS

On August 2, 2013, gas probes GP-1R and GP-4R were installed to replace gas probes GP-1 and GP-4, respectively. Approval of replacement probe usage with GP-1R and GP-4R was approved by USEPA on January 16, 2014. On May 26, 2015, a Request to Modify Gas Monitoring and Well Field Tuning Frequency was submitted to USEPA proposing a reduction in the frequency of the gas well adjustments and soil gas probe monitoring to quarterly intervals. Beginning in November 2015 the compliance points for GP-1 and GP-4 have been replaced with GP-1R and GP-4R and the frequency of the gas well adjustments and soil gas probe monitoring has been changed to quarterly intervals.

4.3 ANNUAL FLARE INLET GAS SAMPLING

On November 12, 2015, a sample was collected of the landfill gas from the inlet to the combustion flare. This sample was collected using a Summa canister over a 4-hour period and submitted for laboratory analysis of VOCs via method TO-15. Sample results were compared to the results of the flare inlet sampling in December 2009, February 2014, and December 2014. These results are presented in Table 5. The laboratory report for samples collected in November 2015 are included in Appendix F.

The 11 Contaminants of Concern (COC) for air appearing in the 1988 L&RR Landfill Record of Decision Summary, Table VI-1, are emphasized in the table by use of bold font. Five of the 11 COCs were not detected in samples. The remaining six COCs continue to appear at detectable concentrations. The next sample to be collected will occur in the fall of 2016.

4.4 RESIDENTIAL WELL SAMPLING

Samples were collected from eight residential drinking water wells located along Pound Hill Road on June 7, 2016 as part of on-going monitoring of drinking water quality downgradient of the landfill. Samples were previously collected in April 2015. Samples collected in June 2016 were included as part of the Remedial Investigation/Feasibility Study (RI/FS) for Operable Unit 2 (OU 2). Samples were collected in accordance with the Quality Assurance Project Plan included with the Field Sampling Plan as part the Interim Final RI/FS Work Plan (dated May 23, 2016) for analysis of VOCs and 1,4-dioxane.

The analytical results indicated that no concentrations of Site-related VOCs or 1,4-dioxane detected above the laboratory’s minimum reporting limit. A summary of the results is provided in Table 6. All sample results have been provided to USEPA for distribution to the property owners.

5. PROBLEMS ENCOUNTERED

5.1 GROUNDWATER AND SURFACE WATER MONITORING

No problems were encountered in the field during the groundwater and surface water sampling event for 2016.

5.2 FLARE PERFORMANCE

System and operational maintenance and improvements continued during this reporting period (May 2015 through April 2016) to support flare performance. No problems were encountered that resulted in performance related flare shutdowns during the reporting period.

6. ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Activities planned for the next reporting period (May 2016 through April 2017) include the following:

Activity	Schedule
Landfill & Flare Inspection	Quarterly
Methane Migration Monitoring	Quarterly
Bi-Annual Flare Inspection	Fall 2016 and Spring 2017
Annual Groundwater and Surface Water Monitoring	Spring 2017
Routine Operational Practices	Ongoing
Flare Inlet Sampling	Annually

TABLES

Table 1:
Groundwater Measurement and Elevation Summary
L&RR Superfund Site, North Smithfield, Rhode Island

Well Location	Geologic Unit ⁽¹⁾	Hydro-geologic Unit ⁽²⁾	Screened Interval (ftb TOC)		MP Elevation (ft amsl)	Measured Well Depth (ftb TOC)	4/5/2016	
			Top	Bottom			Water Level (ftb TOC)	Water Elevation (ft amsl)
MW -101	BR	FR BR	74.2	79.5	329.07	83.4	77.60	251.47
MW - 102A	UN	IC	62.7	73.3	258.03	NM	10.81	247.22
MW - 102B	UN	K	28.9	39.4	253.74	41.07	8.56	245.18
MW - 103A	BR	FR BR	39.2	55.1	268.48	NM	14.79	253.69
MW - 103B	UN	K	12.0	21.8	268.57	29.26	14.75	253.82
MW - 104A	UN	IC	43.5	54.0	263.54	54.02	17.68	245.86
MW - 104B	UN	K	14.5	24.0	263.77	25.56	12.47	251.30
CW - 5A	BR	FR BR	125.0	135.0	304.31	136.68	57.41	246.90
CW - 5B	UN	IC	92.0	102.0	303.92	NM	NM	NM
CW - 5C	UN	K	48.5	68.5	303.98	68.52	56.91	247.07
CW - 6A	BR	FR BR	82.0	92.0	264.06	98.13	18.78	245.28
CW - 6B	UN	IC	51.0	61.0	261.74	NM	18.99	242.75
CW - 6C	UN	K	13.0	33.0	263.98	NM	NM	NM
CW - 7A	UN/BR	IC/FR BR	37.0	47.0	255.59	48.22	8.75	246.84
CW - 7B	UN	IC	27.0	37.0	255.50	46.39	8.48	247.02
CW - 7C	UN	K	7.0	27.0	255.05	NM	8.05	247.00
MW-201	UN/BR	IC	69.0	89.0	320.25	90.68	68.71	251.54
MW-202	UN/BR	IC	21.0	38.6	253.26	38.32	10.81	242.45

Notes:

Abbreviations:

- NM - not measured
- ft amsl - feet above mean sea level
- ftb toc - feet below top of casing
- MP - measuring point
- (1) BR - Bedrock
- UN - Unconsolidated
- (2) FR BD - Fractured Bedrock
- K - Kame
- IC - Ice Contact
- W - Wetland

Table 2: Summary of Post-Closure Monitoring Analytical Parameters and Methods

April 2016
L&RR Superfund Site – North Smithfield, RI

Sampling Medium	Parameter	Analytical Method
Groundwater	VOCs	8260C
	1,4-Dioxane	8270 SIM
	Arsenic (Total)	6010C
	Arsenic (Dissolved)	6010C
	Cadmium (Total)	6010C
	Cadmium (Dissolved)	6010C
	Lead (Total)	6010C
	Lead (Dissolved)	6010C
	Iron	6010C
	Manganese (Total)	6010C
	Manganese (Dissolved)	6010C
	Chloride	300.0
	Ammonia	350.1
	COD	410.4
	BOD	SM 5210B
	EDB	504.1
DBCP	504.1	
Surface Water	VOCs	8260C
	1,4-Dioxane	8270 SIM
	Arsenic (Total)	6010C
	Arsenic (Dissolved)	6010C
	Chloride	300.0

Table 3:
2016 Groundwater Analytical Results
 L&RR Superfund Site, North Smithfield, Rhode Island

Sample ID				CW-5B	CW-7B	MW-102A	DUP-1 (MW-102A)	MW-103A	MW-104A	MW-201	MW-202
Sample Date	CAS Number	MCLs	Units	4/5/2016	4/5/2016	4/5/2016	4/5/2016	4/5/2016	4/5/2016	4/5/2016	4/5/2016
Tert-amyl methyl ether	994-05-8	NE	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Tert-butyl ethyl ether	637-92-3	NE	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	98-06-6	NE	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	127-18-4	5.0	ug/L	1.9	<0.5	1.1	1.2	<0.5	<0.5	<0.5	<0.5
Tetrahydrofuran	109-99-9	NE	ug/L	<2	1.6J	1.3J	1.3J	<2	4.3	<2	<2
Toluene	108-88-3	1,000	ug/L	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75	<0.75
trans-1,2-Dichloroethene	156-60-5	100	ug/L	<0.75	<0.75	0.5J	0.49J	<0.75	<0.75	<0.75	<0.75
trans-1,3-Dichloropropene	10061-02-6	NE	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,4-Dichloro-2-butene	110-57-6	NE	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichloroethene	79-01-6	5.0	ug/L	<0.5	<0.5	2.1	2.1	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	75-69-4	NE	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	75-01-4	2.0	ug/L	<0.2	<0.2	5.2	5.3	<0.2	<0.2	<0.2	<0.2
Xylenes, Total	1330-20-7	10,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L = micrograms per liter

mg/L = milligrams per liter

BOLD results indicate those detected above the laboratory reporting limit

SHADED results indicate those in exceedance of the MCL for that constituent

MCLs = Maximum Contaminant Levels as specified by the USEPA

NE = MCL has not been established for the specific analyte

Data validated in accordance with EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (EPA, 2013).

J+ = Result estimated, biased high

U = Qualified due to field blank contamination

Table 5

**L&RR Landfill, North Smithfield, RI
Flare Inlet Gas Samples,
TO-15 Data Summary**

Notes:

Analytes in **BOLD** font are the L&RR Site
Contaminants of Concern for air listed in the
1988 Record of Decision Summary, Table VI-1

ANALYTE	DATE SAMPLED	12/23/09			02/27/14	12/03/14				11/12/15
		Run 1	Run 2	Run 3		Run 1	Run 2	Run 3	Average	
Acetone (2-propanone)	ppbv	2430	2560	6960	3500	<780	<500	<420		3000
Benzene	ppbv	2800	3100	2730	2300	2450	2330	2800	2527	2200
Benzyl chloride	ppbv	ND	ND	ND	ND	<190	<180	<190		<30
Bromodichloromethane	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
Bromoform	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
Bromomethane	ppbv	ND	ND	ND	ND	<34	<32	<34		<30
1,3-Butadiene	ppbv	ND	ND	ND	ND	<95	<90	<95		<30
2-Butanone (Methyl Ethyl Ketone)	ppbv	2260	2410	3320	2000	<570	<540	<570		3800
Carbon Disulfide	ppbv	70	ND	ND	20	<95	<90	<95		<300
Carbon Tetrachloride	ppbv	ND	ND	ND	ND	<57	<54	<57		<30
Chlorobenzene	ppbv	192	224	175	200	263	265	344	291	550
Chloroethane	ppbv	185	278	203	79	119	112	133	121	97
Chloroform	ppbv	ND	ND	ND	ND	<29	<27	<29		<30
Chloromethane (methyl chloride)	ppbv	ND	ND	ND	6.6	63	<54	<57		<60
Cyclohexane	ppbv	1860	2050	1940	590	1050	992	1200	1081	1500
Dibromochloromethane	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
1,2-Dibromoethane (Ethylene Dibromide)	ppbv	ND	ND	ND	ND	<32	<31	<32		<30
1,2-Dichlorobenzene	ppbv	ND	ND	ND	ND	<76	<72	<76		56
1,3-Dichlorobenzene	ppbv	ND	ND	ND	ND	<76	<72	<76		<30
1,4-Dichlorobenzene	ppbv	178	231	ND	460	179	177	238	198	370
Dichlorodifluoromethane (Freon 12)	ppbv	291	328	320	280	120	120	138	126	590
1,1-Dichloroethane	ppbv	202	213	193	76	177	191	230	199	230
1,2-Dichloroethane	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
1,1-Dichloroethylene	ppbv	ND	ND	ND	ND	<48	<45	<48		<30
cis-1,2-Dichloroethylene	ppbv	433	472	422	280	552	536	674	587	910
trans-1,2-Dichloroethylene	ppbv	32	ND	ND	14	<38	<36	<38		<30
1,2-Dichloropropane	ppbv	ND	ND	ND	15	<76	<72	<76		<30
cis-1,3-Dichloropropene	ppbv	ND	ND	ND	ND	<34	<32	<34		<30
trans-1,3-Dichloropropene	ppbv	ND	ND	ND	ND	<32	<31	<32		<30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ppbv	124	135	132	64	121	122	139	127	100
1,4-Dioxane	ppbv	ND	ND	ND	ND	<380	<360	<380		340
Ethanol	ppbv	19500	19000	18600	6500	<580	<410	<440		11000
Ethyl Acetate	ppbv	867	940	ND	610	<420	<400	<420		620
Ethylbenzene	ppbv	8760	9680	7680	4700	7810	7610	9610	8343	4100

Table 5

L&RR Landfill, North Smithfield, RI
Flare Inlet Gas Samples,
TO-15 Data Summary

Notes:
Analytes in **BOLD** font are the L&RR Site
Contaminants of Concern for air listed in the
1988 Record of Decision Summary, Table VI-1

ANALYTE	DATE SAMPLED	12/23/09			02/27/14	12/03/14				11/12/15
		Run 1	Run 2	Run 3		Run 1	Run 2	Run 3	Average	
4-Ethyltoluene	ppbv	321	ND	ND	430	<420	403	517		570
Heptane	ppbv	1460	1590	1370	620	1210	1140	1390	1247	1500
Hexachlorobutadiene	ppbv	ND	ND	ND	ND	<570	<540	<570		<30
Hexane	ppbv	1580	1820	1690	860	2500	2030	2600	2377	1600
2-Hexanone (Methyl Butyl Ketone)	ppbv	ND	ND	ND	ND	<380	<360	<380		<30
Isopropanol (2 propanol)	ppbv	4220	4290	4330	2100	<570	<540	<570		1800
Methyl tert-Butyl Ether (MTBE)	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
Methylene Chloride (Dichloromethane)	ppbv	157	ND	ND	60	<580	<320	<450		470
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ppbv	ND	ND	ND	ND	<610	<580	<610		<30
Naphthalene	ppbv	.	.	.	390					140
Propene	ppbv	7040	7360	7220	ND	4740	4510	5400	4883	9400
Styrene	ppbv	190	296	184	140	104	95	121	107	160
1,1,2,2-Tetrachloroethane	ppbv	ND	ND	ND	ND	<38	<36	<38		<30
Tetrachloroethylene	ppbv	135	146	122	79	93	92	110	98	1000
Tetrahydrofuran	ppbv	1410	1700	1600	630	<76	<72	<76		940
Toluene	ppbv	41800	54300	45500	13000	35400	27300	35300	32667	6000
1,2,4-Trichlorobenzene	ppbv	ND	ND	ND	17	<380	<360	<380		<30
1,1,1-Trichloroethane	ppbv	ND	ND	ND	ND	<57	<54	<57		<30
1,1,2-Trichloroethane	ppbv	ND	ND	ND	ND	<29	<27	<29		<30
Trichloroethylene	ppbv	91	98	ND	43	70	78	89	79	120
Trichlorofluoromethane (Freon 11)	ppbv	ND	ND	ND	3.5	<38	<36	<38		<120
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ppbv	ND	ND	ND	3	<29	<27	<29		<120
1,2,4-Trimethylbenzene	ppbv	921	1100	924	750	998	981	1270	1083	1500
1,3,5-Trimethylbenzene	ppbv	455	532	463	580	525	515	650	563	720
Vinyl Acetate	ppbv	ND	130	ND	ND	<38	<36	<38		<600
Vinyl Chloride	ppbv	1330	1380	1290	550	878	891	1070	946	830
m&p-Xylene	ppbv	15300	17500	13500	7700	13400	13100	16600	14367	4600
o-Xylene	ppbv	3340	3830	2960	2000	3240	3160	4030	3477	4100

Table 6:
2016 Residential Drinking Water Analytical Results
 L&RR Superfund Site, North Smithfield, Rhode Island

Sample Location		Units	1305 POUND HILL	1309 POUND HILL	1313 POUND HILL	1317 POUND HILL	1325 POUND HILL	1363 POUND HILL	1375 POUND HILL	1431 POUND HILL
Sample Date	CAS Number		6/7/2016	6/7/2016	6/7/2016	6/7/2016	6/7/2016	6/7/2016	6/7/2016	6/7/2016
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	71-55-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	79-00-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	75-34-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	75-35-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloropropene	563-58-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichlorobenzene	87-61-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	96-18-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	120-82-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene	95-63-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	96-12-8	ug/L	<0.01	<0.01	<0.01	<0.01	<0.011	<0.01	<0.01	<0.01
1,2-Dibromo-3-chloropropane	96-12-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane	106-93-4	ug/L	<0.01	<0.01	<0.01	<0.01	<0.011	<0.01	<0.01	<0.01
1,2-Dibromoethane	106-93-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	95-50-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	107-06-2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	78-87-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	108-67-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	541-73-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane	142-28-9	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	106-46-7	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dioxane	123-91-1	ug/L	<0.153	<0.16	<0.153	<0.156	<0.144*	<0.153	<0.147	<0.142
2,2-Dichloropropane	594-20-7	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	71-43-2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	108-86-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	74-97-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	75-25-2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	74-83-9	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	56-23-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	108-90-7	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	75-00-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	67-66-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5
Chloromethane	74-87-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	10061-01-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	124-48-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	74-95-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	75-71-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	87-68-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	98-82-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl tert butyl ether	1634-04-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	75-09-2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Butylbenzene	104-51-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	103-65-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Chlorotoluene	95-49-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene	95-47-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p/m-Xylene	179601-23-1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Chlorotoluene	106-43-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	99-87-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	135-98-8	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	100-42-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
tert-Butylbenzene	98-06-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	108-88-3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	10061-02-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	79-01-6	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	75-69-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	75-01-4	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes, Total	1330-20-7	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

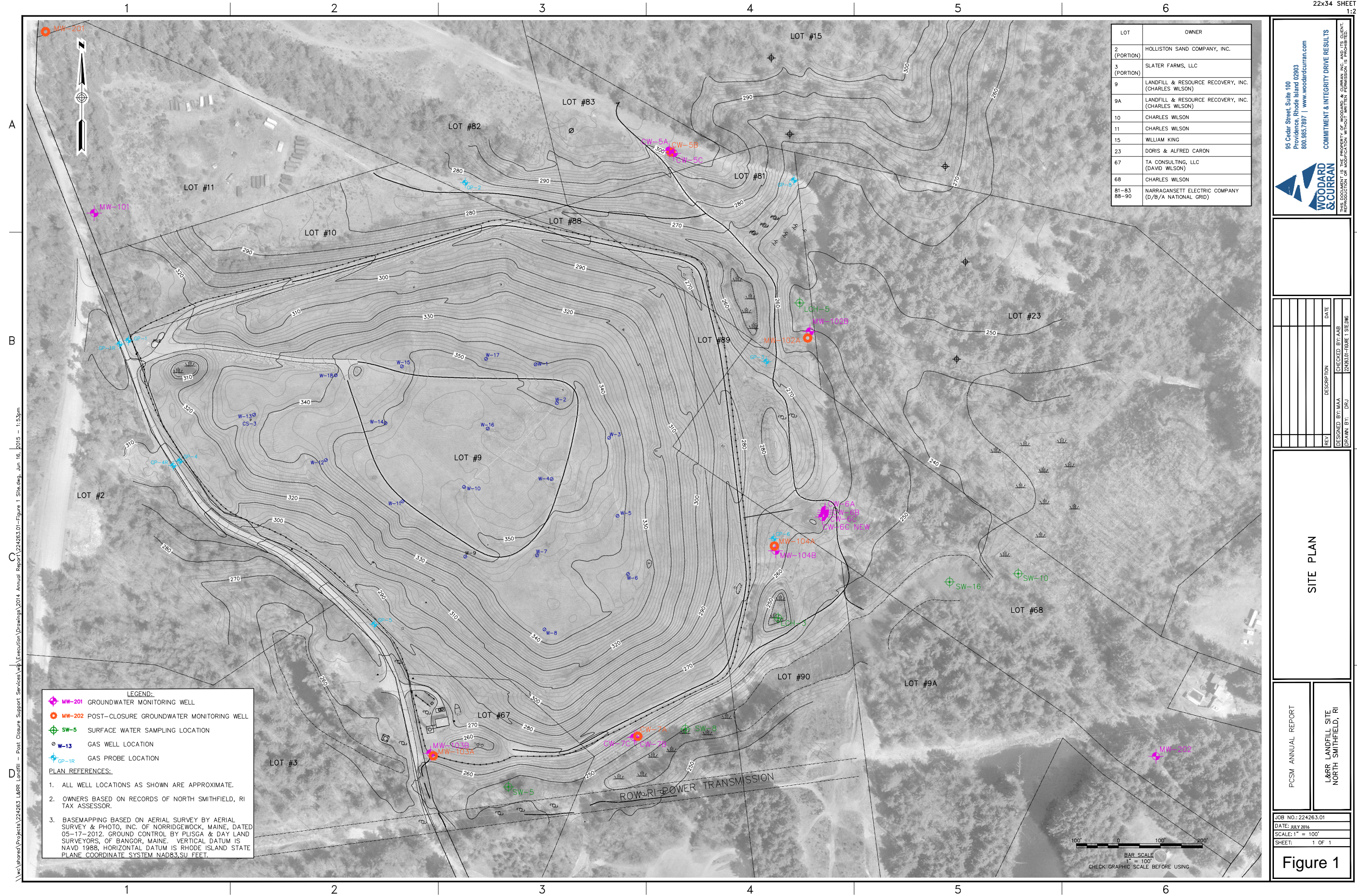
ug/L = micrograms per liter

BOLD results indicate those detected above the laboratory reporting limit

Data validated in accordance with EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures (EPA, 2013).

* Result is from re-analysis.

FIGURES



LOT	OWNER
2 (PORTION)	HOLLISTON SAND COMPANY, INC.
3 (PORTION)	SLATER FARMS, LLC
9	LANDFILL & RESOURCE RECOVERY, INC. (CHARLES WILSON)
9A	LANDFILL & RESOURCE RECOVERY, INC. (CHARLES WILSON)
10	CHARLES WILSON
11	CHARLES WILSON
15	WILLIAM KING
23	DORIS & ALFRED CARON
67	TA CONSULTING, LLC (DAVID WILSON)
68	CHARLES WILSON
81-83 88-90	NARRAGANSETT ELECTRIC COMPANY (D/B/A NATIONAL GRID)

LEGEND:

- ◆ MW-201 GROUNDWATER MONITORING WELL
- MW-202 POST-CLOSURE GROUNDWATER MONITORING WELL
- ⊕ SW-5 SURFACE WATER SAMPLING LOCATION
- W-13 GAS WELL LOCATION
- + GP-1R GAS PROBE LOCATION

PLAN REFERENCES:

1. ALL WELL LOCATIONS AS SHOWN ARE APPROXIMATE.
2. OWNERS BASED ON RECORDS OF NORTH SMITHFIELD, RI TAX ASSESSOR.
3. BASEMAPPING BASED ON AERIAL SURVEY BY AERIAL SURVEY & PHOTO, INC. OF NORRIDGEWOCK, MAINE, DATED 05-17-2012. GROUND CONTROL BY PLUSGA & DAY LAND SURVEYORS, OF BANGOR, MAINE. VERTICAL DATUM IS NAVD 1988, HORIZONTAL DATUM IS RHODE ISLAND STATE PLANE COORDINATE SYSTEM NAD83, SU FEET.

95 Cedar Street, Suite 100
Providence, Rhode Island 02903
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REV	DESCRIPTION	DATE

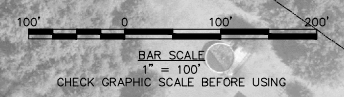
DESIGNED BY: MAA
DRAWN BY: DRJ
CHECKED BY: AAB
224263-FIGURE 1 SITE PLAN

SITE PLAN

PCSM ANNUAL REPORT
L&RR LANDFILL SITE
NORTH SMITHFIELD, RI

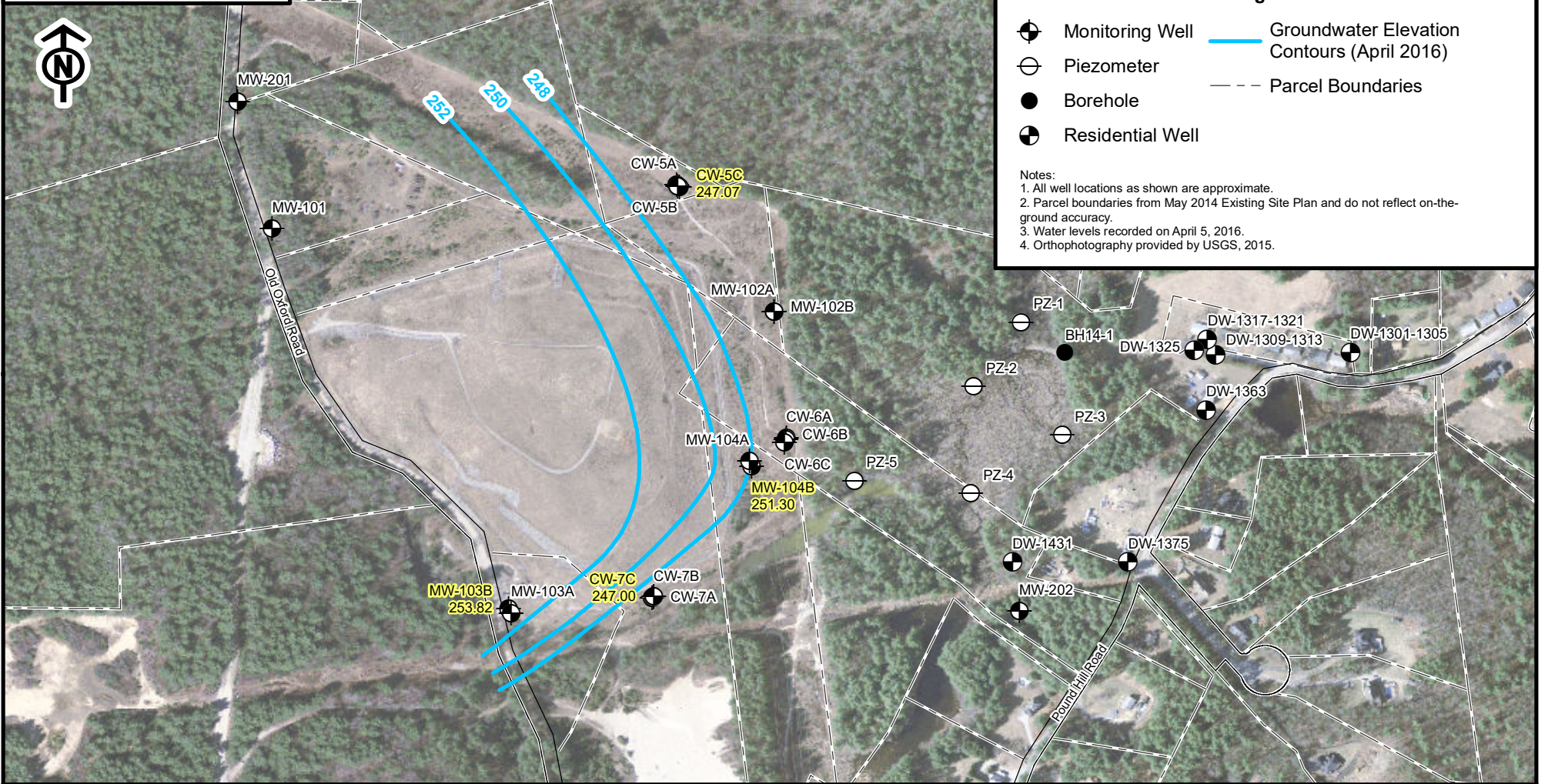
JOB NO.: 224263.01
DATE: JULY 2016
SCALE: 1" = 100'
SHEET: 1 OF 1

Figure 1



\\c:\shared\Projects\224263_L&RR Landfill - Post Closure Support Services\p\Execution\Drawings\2014 Annual Report\224263.01-Figure 1 Site.dwg, Jun 16, 2015 - 1:53pm

Overburden Shallow



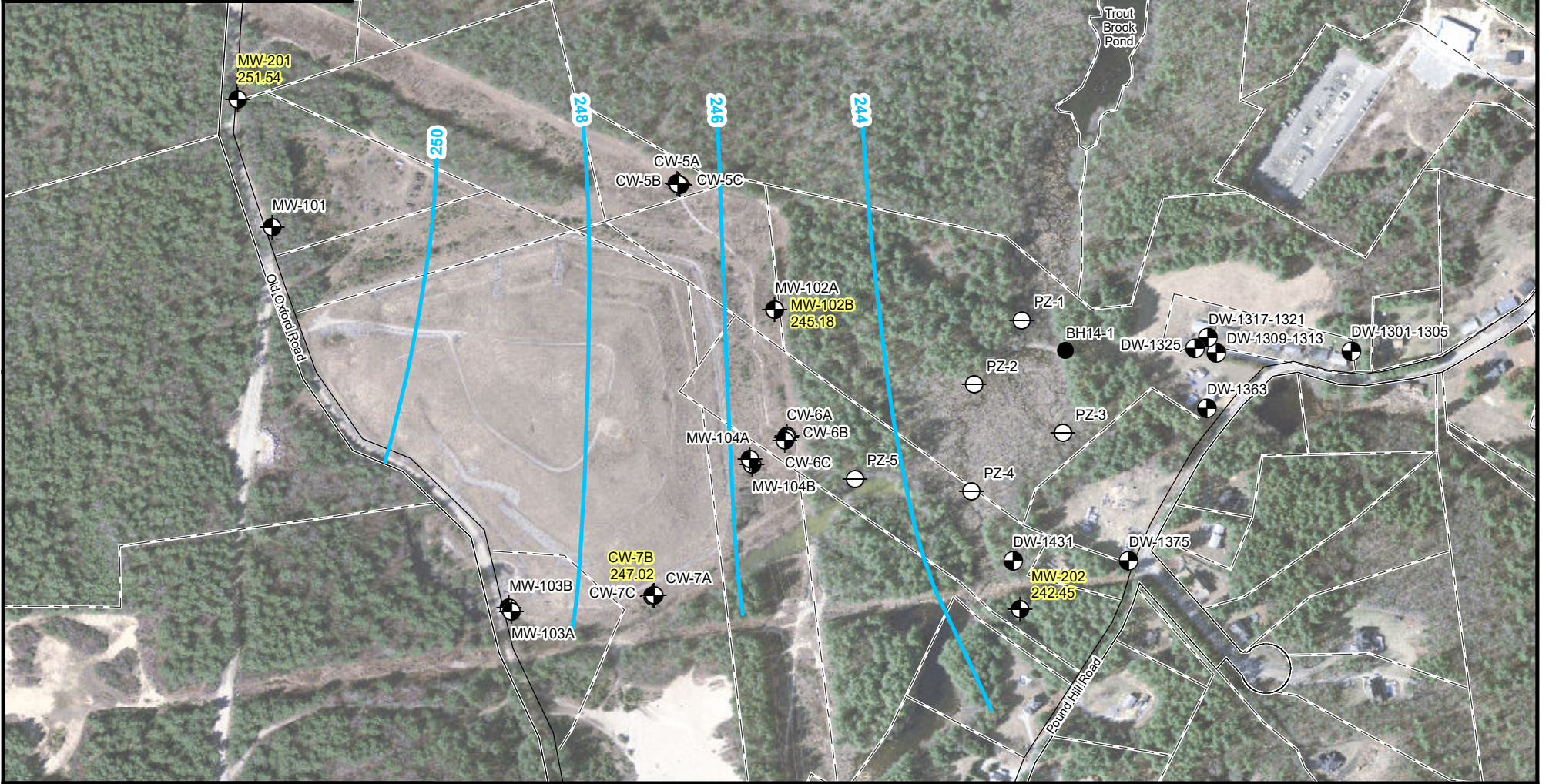
Legend

- Monitoring Well
- Piezometer
- Borehole
- Residential Well
- Groundwater Elevation Contours (April 2016)
- Parcel Boundaries

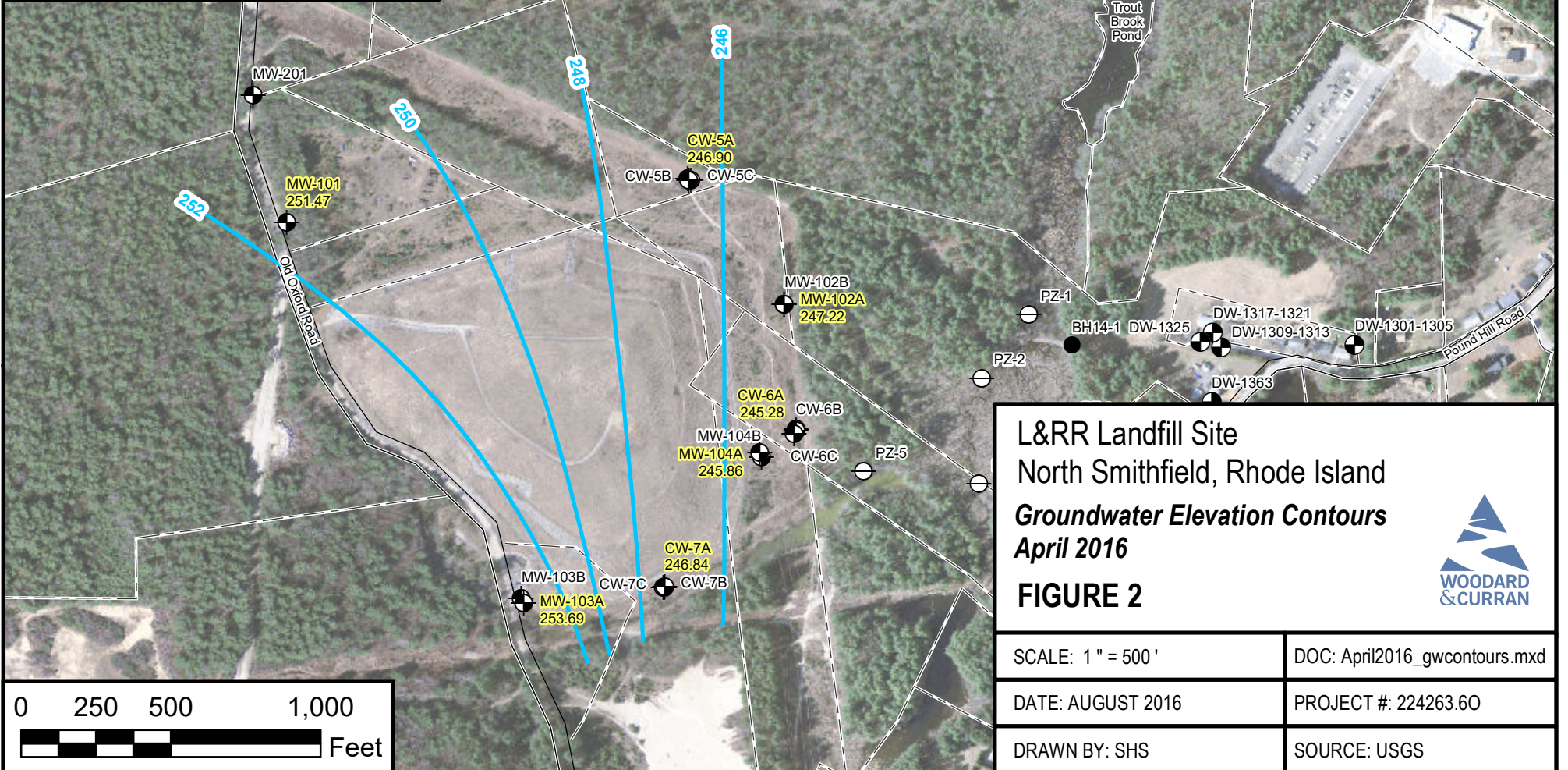
Notes:

1. All well locations as shown are approximate.
2. Parcel boundaries from May 2014 Existing Site Plan and do not reflect on-the-ground accuracy.
3. Water levels recorded on April 5, 2016.
4. Orthophotography provided by USGS, 2015.

Overburden Intermediate



Overburden Deep and Bedrock



L&RR Landfill Site
 North Smithfield, Rhode Island
Groundwater Elevation Contours
 April 2016

FIGURE 2

SCALE: 1" = 500'	DOC: April2016_gwcontours.mxd
DATE: AUGUST 2016	PROJECT #: 224263.60
DRAWN BY: SHS	SOURCE: USGS

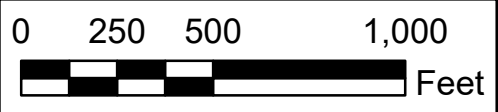


Figure Exported: 7/28/2016 By: solhey Using: \\woodardcurran.net\share\Projects\224263 L&RR Landfill - Post Closure Support Services\wpi\Execution\GIS\MXD\2016.07 Annual Report\April2016_gwcontours.mxd

**APPENDIX A: MONTHLY AND QUARTERLY INSPECTION
REPORTS (MAY 2015 THROUGH MARCH 2016)**



June 15, 2015

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Monthly Progress Report – May 2015

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this monthly report summarizes site activities completed during May 2015 by Woodard & Curran.

Summary of Monthly Activities

As discussed in previous Monthly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period:

- Between May 6 and May 10, 2015 the flare operated.
- Between May 13 and May 17, 2015 the flare operated.

During May 2015, the flare experienced several unexpected shutdowns due to a problem with the flare detection sensor. The flare detection sensor was repaired on June 2, 2015 and the flare has been operating as programmed since.

Woodard & Curran conducted the semi-annual flare inspection on May 11, 2015. The flare (flame arrestor, burners, flame detector lens, and IRIS output), air compressor, knockout sump and blowers #1 and #2 are operating properly. Cleaning of the flame arrestor was performed to remove minor dust and dirt in the housing and arrestor plates.

As discussed in the previous monthly report and in a letter submitted to USEPA on May 26, 2015, Request to Modify Gas Monitoring and Well Field Tuning Frequency, Woodard & Curran proposed that gas probe monitoring and well field tuning be reduced from monthly to quarterly monitoring. Monthly monitoring will continue until formal approval to reduce monitoring to quarterly has been received.

The monthly site visit was conducted on May 29, 2015. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1 through GP-6, GP-8, GP-1R, and GP-4R. Woodard & Curran proposed to end the monitoring of perimeter probes GP-1 and GP-4 as compliance points beginning in September 2014. The compliance points for these locations have been replaced with GP-1R and GP-4R. As discussed in the previous monthly report Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in June 2015. This proposal will also be submitted in a separate letter request.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.



A summary of pertinent information includes the following:

- The flare inlet flow rate, temperature, and methane level measured at 433 cfm, 1783°F, and 41.1% respectively.
- The methane levels in all compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know whether you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures

cc: Paul Kulpa, RIDEM
David Moreira, Waste Management
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.

DATE: 5/29/2015		WEATHER CONDITIONS: Sunny				MONITORED BY: S. Driscoll/J. Guerra			
TEMP: 70		SYSTEM CONDITION: On Line				BAROMETRIC PRESSURE START: 29.84			
Flare Inlet Temp: 1783		Flare Outlet Temp: 1062				BAROMETRIC PRESSURE END: 30.06			
SYSTEM LEVELS					FLOW (cfm): 433				
WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
FLARE	11:10	41.1	31.8	0.5	NM	1.20	---	---	
BLOWER	11:05	40.7	31.9	0.6	60.0	-8.60	---	---	
W-1	13:30	58.8	30.4	0.9	86	-2.4	50%	50%	
W-2	13:20	42.1	29.6	0.4	92	-3	100%	100%	
W-3	13:10	47.5	27.1	0.8	0	-5.6	0%	0%	
W-4	13:00	53.6	38.1	0.1	82	-1.2	0%	0%	
W-5	12:30	0.1	0.1	20.1	72	0	0%	0%	
W-6	12:20	1.0	22.9	0.1	80	.18	0%	0%	
W-7	12:00	49.9	35.3	0.6	70	-1.6	25%	25%	
W-8	12:10	23.9	20.2	5.3	78	-4.8	100%	100%	
W-9	11:50	36.4	29.8	0.4	80	-5.8	100%	100%	
W-10	11:40	41.1	31.1	0.7	84	-4	100%	100%	
W-11	14:50	42.7	32.2	0.2	0	-4.8	100%	100%	
W-12	14:40	51.7	37.7	0.1	88	-2.4	100%	100%	
W-13	14:30	56.4	37.1	0.7	60	-6.2	100%	100%	
W-14	15:00	44.1	33.8	0.3	76	-1.8	0%	0%	
W-15	13:55	59.2	36.6	0.3	104	-3	100%	100%	
W-16	11:30	49.9	35.9	0.2	90	-3	50%	75%	Opened to 75%
W-17	14:05	46.0	30.4	0.2	0	-2.4	50%	50%	
W-18	14:15	59.3	40.4	0.1	84	-5	100%	100%	
Building	7:15	0.0	0.1	20.9	60.0	---	---	---	
COMPLIANCE PROBE LEVELS					NOTE: ADDITIONAL COMMENT SPACE ON BACK				
WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (%)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)	
GP-1	10:00	0.0	10.8	10.2	N/A	N/A	N/A	Intermediate Non-Compliance Probe	
GP-1R	10:10	0.0	14.7	4.4	N/A	N/A	N/A	Compliance Probe	
GP-2	9:20	0.0	1.6	18.6	N/A	N/A	N/A		
GP-3	9:45	0.0	1.6	18.6	N/A	N/A	N/A		
GP-4	10:35	0.0	4.6	12.4	N/A	N/A	N/A	Intermediate Non-Compliance Probe	
GP-4R	10:45	0.0	0.5	16.1	N/A	N/A	N/A	Compliance Probe	
GP-5	10:55	0.0	1.5	19.7	N/A	N/A	N/A		
GP-6	8:45	0.0	2.0	18.7	N/A	N/A	N/A		
GP-8	9:00	0.0	0.1	20.1	N/A	N/A	N/A		
ADDITIONAL COMMENTS:									
NM = Not Measured									
N/A = Not Available									
Installed sample port and temperature gauge on W-16									

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

Inspectors Names: Sean Driscoll / J. Guerra

Date: 5/29/15

Time On Site 7:00 – 16:00

Weather: Sunny

Temperature: 70° F

Signature: _____



CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			Installed sample port and temperature gauge on W-16	5/29/15
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						



July 30, 2015

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Monthly Progress Report – June 2015

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this monthly report summarizes site activities completed during June 2015 by Woodard & Curran.

Summary of Monthly Activities

As discussed in previous Monthly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period:

- Between June 2 and June 5, 2015 the flare operated.
- Between June 7 and June 11, 2015 the flare operated.
- Between June 14 and June 18, 2015 the flare operated.
- Between June 21 and June 25, 2015 the flare operated.
- Between June 28 and July 2, 2015 the flare operated.

As discussed in the previous monthly report and in a letter submitted to USEPA on May 26, 2015, Request to Modify Gas Monitoring and Well Field Tuning Frequency, Woodard & Curran proposed that gas probe monitoring and well field tuning be reduced from monthly to quarterly monitoring. Monthly monitoring will continue until formal approval to reduce monitoring to quarterly has been received.

On June 22, 2015, EQ Environmental of Wrentham, Massachusetts, was onsite to remove 2,200 gallons of condensate from the condensate storage tank. The non-hazardous manifest is attached.

The monthly site visit was conducted on June 30, 2015. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1 through GP-6, GP-8, GP-1R, and GP-4R. Woodard & Curran proposed to end the monitoring of perimeter probes GP-1 and GP-4 as compliance points beginning in September 2014. The compliance points for these locations have been replaced with GP-1R and GP-4R. As discussed in the previous monthly report Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in July 2015. This proposal will also be submitted in a separate letter request.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.



A summary of pertinent information includes the following:

- The flare inlet flow rate, temperature, and methane level measured at 392 cfm, 1808°F, and 34.9% respectively.
- The methane levels in all compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know whether you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures

cc: Paul Kulpa, RIDEM
David Moreira, Waste Management
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.

DATE: 6/30/2015	WEATHER CONDITIONS: Sunny	MONITORED BY: S. Driscoll / G. Amato
TEMP: 70	SYSTEM CONDITION: On Line	BAROMETRIC PRESSURE START: 29.68
Flare Inlet Temp: 1808	Flare Outlet Temp: 1075	BAROMETRIC PRESSURE END: 29.67
SYSTEM LEVELS		FLOW (cfm): 392

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
FLARE	7:20	34.9	30.5	1.0	NA	+1.5	---	---	
BLOWER	7:15	34.7	30.5	1.2	70.0	-11.0	---	---	
W-1	13:55	60.2	33.9	0.9	86	-4.5	50%	50%	
W-2	13:40	43.7	34.3	0.3	92	-5.5	100%	100%	
W-3	13:25	7.7	5.5	17.1	NA	-3	0%	0%	
W-4	13:15	0.7	1.5	20.4	82	-4	0%	0%	
W-5	13:00	0.9	1.4	20.8	74	0	0%	0%	
W-6	12:55	2.7	25.6	2.0	88	+0.28	0%	0%	
W-7	12:00	25.9	19.4	11.4	72	-4.5	25%	25%	
W-8	12:45	23.9	20.8	4.8	80	-7	100%	100%	
W-9	11:45	32.4	30.4	0.4	80	-8.5	100%	100%	
W-10	11:25	41.0	33.5	0.2	84	-7	100%	100%	
W-11	11:15	36.9	32.0	0.3	NA	-8	100%	100%	
W-12	11:05	38.4	34.8	0.2	88	-5	100%	100%	
W-13	10:55	42.9	32.4	2.7	70	-7.5	100%	100%	
W-14	14:45	4.8	3.6	18.6	78	-2	0%	0%	
W-15	14:15	54.8	36.8	0.5	100	-5.0	100%	100%	
W-16	14:30	48.9	36.7	0.2	90	-5.5	75%	75%	
W-17	14:55	32.2	26.9	1.4	NA	-5.5	50%	50%	
W-18	10:45	55.5	39.3	0.4	86	-6.0	100%	100%	
Building	7:00	0.0	0.1	20.6	78.0	---	---	---	

NOTE: ADDITIONAL COMMENT SPACE ON BACK

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (%)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
GP-1	9:25	0.0	7.4	13.5	N/A	N/A	N/A	Intermediate Non-Compliance Probe
GP-1R	9:35	0.0	12.8	5.8	N/A	N/A	N/A	Compliance Probe
GP-2	8:30	0.0	3.1	17.8	N/A	N/A	N/A	
GP-3	9:10	0.0	2.0	18.4	N/A	N/A	N/A	
GP-4	9:50	0.0	5.4	12.5	N/A	N/A	N/A	Intermediate Non-Compliance Probe
GP-4R	10:00	0.0	2.8	16.6	N/A	N/A	N/A	Compliance Probe
GP-5	10:15	0.0	2.8	17.4	N/A	N/A	N/A	
GP-6	8:00	0.0	3.3	17.6	N/A	N/A	N/A	
GP-8	8:50	0.0	0.4	20.7	N/A	N/A	N/A	

ADDITIONAL COMMENTS:
 NM = Not Measured
 N/A = Not Available

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

Inspectors Names: Sean Driscoll / G. Amato

Date: 6/30/15

Time On Site 7:00 – 15:30

Weather: Sunny

Temperature: 70° F

Signature: _____



CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			None	
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						



EQ Northeast, Inc.
185 Industrial Road
Wrentham, MA 02093

Emergency Response #:
Phone: (508) 384-6151
Fax: (508) 384-6028

Work Order: 8882300
Reference Code:
Arrival Time:
Date: 06/17/2015
Prepared By: Wanda Tobey

BILLING INFORMATION

Name: WOODARD & CURRAN INC
Acct. #: 13134-99
Phone: (866) 702-6371
Addr: 35 NEW ENGLAND BUSINESS CENTERSUITE 180 ANDOVER, MA 01810
Contact: _____
Title: _____
Phone: _____
Mobile: () - _____
PO / Rel: _____

GENERATOR INFORMATION

Name: FORMER L&RR LANDFILL
EPA #: RID093212439 (ID: 73759)
Phone: (860) 883-3798
Addr: OFF OLD OXFORD RD. NORTH SMITHFIELD, RI 02876
Contact: _____
Title: _____
Phone: () - _____
Mobile: () - _____

TSDf INFORMATION

TSDf: LIQUID ENVIRONMENTAL SOLUTIONS TSDf Contact: RICK DERBY
Addr: 527 PLEASANT STREET ATTLEBORO, MA 02703
EPA #: MAC300005808
Phone: (508) 236-6001 301
Fax: () -

Manifest:

TSDf Contact: RICK DERBY
TSDf: LIQUID ENVIRONMENTAL SOLUTIONS
Addr: 527 PLEASANT STREET ATTLEBORO, MA 02703
EPA #: MAC300005808
Phone: (508) 236-6001 301
Fax: () -

HM DESCRIPTION

1. Non Hazardous Liquid Waste, Not DOT Not RCRA Regulated, None, None, None
Approval Code: 100567 (44972) Waste Codes: NONE
Hend. Instruct:

#	OF CONT.	TYPE	QUANTITY	UNIT
1	1	TT	2200	G

EQUIPMENT ACKNOWLEDGMENT

Customer acknowledges that this equipment is suitable for the transportation, storage or other service to be provided.

Tractor # 408 Trailer # _____ Tanker # _____ Roll-Off Box # _____ w/ liner? _____ Spotted # _____ Picked up # _____ Vac Fee _____

Driver Signature _____ Date _____ Customer Signature _____ Date _____

Pickup	Date	Time	Explanation
Arrive at Shipper:	6/22	8:00	
Start Loading:			Use tank + lot 7
Finish Loading:			
Leave Site:		9:00	

SHIPMENT RECEIVED IN APPARENT GOOD ORDER (CONTENTS UNKNOWN) SUBJECT TO THE TERMS AND CONDITIONS OF THE UNIFORM STRAIGHT BILL OF LADING AND ANY GOVERNING CLASSIFICATIONS AND TARIFFS LAWFULLY ON FILE ON THE DATE OF SHIPMENT. THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

Driver Signature [Signature] Date 6/22/15 Customer Signature [Signature] Date 6/22

Delivery	Date	Time	Explanation
Arrive at TSDf:			
Start Unloading:			
Finish Unloading:			
Leave Site:			

Driver Signature _____ Date _____ Receiver Signature _____ Date _____

Please comment on the job so we can continue to provide better service Excellent Satisfactory Poor



September 15, 2015

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Monthly Progress Report – July 2015

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this monthly report summarizes site activities completed during July 2015 by Woodard & Curran.

Summary of Monthly Activities

As discussed in previous Monthly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period:

- Between June 28 and July 2, 2015 the flare operated.
- Between July 5 and July 9, 2015 the flare operated.
- Between July 12 and July 16, 2015 the flare operated.
- Between July 19 and July 23, 2015 the flare operated.
- Between July 26 and July 30, 2015 the flare operated.
- Between July 31 and August 4, 2015 the flare operated.

As discussed in the previous monthly report and in a letter submitted to USEPA on May 26, 2015, Request to Modify Gas Monitoring and Well Field Tuning Frequency, Woodard & Curran proposed that gas probe monitoring and well field tuning be reduced from monthly to quarterly monitoring. Monthly monitoring will continue until formal approval to reduce monitoring to quarterly has been received.

The monthly site visit was conducted on July 31, 2015. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1 through GP-6, GP-8, GP-1R, and GP-4R. As discussed in previous monthly reports Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in July 2015. The compliance points for these locations have been replaced with GP-1R and GP-4R.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.



A summary of pertinent information includes the following:

- The flare inlet flow rate, temperature, and methane level measured at 401 cfm, 1789°F, and 34.2% respectively.
- The methane levels in all compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know whether you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures

cc: Paul Kulpa, RIDEM
David Moreira, Waste Management
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.

DATE: 7/31/2015		WEATHER CONDITIONS: Sunny			MONITORED BY: J. Guerra/G. Rose				
TEMP: 90		SYSTEM CONDITION: ON Line			BAROMETRIC PRESSURE START: 29.51				
Flare Inlet Temp: 1789		Flare Outlet Temp: 1074			BAROMETRIC PRESSURE END: 29.50				
SYSTEM LEVELS					FLOW (cfm): 401				
WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
FLARE	10:05	34.2	31.2	0.3	-	1.50	---	---	
BLOWER	10:00	30.8	28.4	1.9	72.0	-7.60	---	---	
W-1	11:10	62.3	36.0	0.4	90	-2	50%	75%	Opened to 75%
W-2	11:20	43.4	34.4	0.4	92	-2.4	100%	100%	
W-3	11:30	47.3	30.8	0.3	NA	-0.16	0%	0%	
W-4	11:40	20.1	12.3	3.4	84	-0.96	0%	0%	
W-5	11:50	1.9	2.1	19.2	76	-0.16	0%	0%	
W-6	12:00	4.5	25.1	2.5	86	0.22	0%	0%	
W-7	12:10	49.9	36.9	2.4	74	-0.74	25%	25%	
W-8	12:55	26.7	26.3	1.7	74	-4	100%	100%	
W-9	13:05	29.0	28.8	1.3	80	-5	100%	100%	
W-10	13:15	36.3	32.2	0.7	85	-3.4	100%	100%	
W-11	13:25	33.2	30.5	0.9	NA	-4	100%	100%	
W-12	13:45	39.0	35.2	0.4	85	-2	100%	100%	
W-13	10:30	44.7	34.6	1.9	70	-5	100%	100%	
W-14	10:40	1.7	1.8	19.3	72	-0.7	0%	0%	
W-15	10:50	50.5	36.2	0.6	108	-2	100%	100%	
W-16	14:00	46.0	35.7	0.4	90	-2.6	75%	100%	Opened to 100%
W-17	11:00	34.6	29.1	0.3	NA	-2	50%	50%	
W-18	10:20	56.5	40.3	0.6	82	-2	100%	100%	
Building	7:15	0.0	0.1	20.6	0.0	---	---	---	
NOTE: ADDITIONAL COMMENT SPACE ON BACK									
COMPLIANCE PROBE LEVELS									
WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (%)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)	
GP-1	8:25	0.0	13.4	6.2	N/A	N/A	N/A	Intermediate Non-Compliance Probe	
GP-1R	8:35	0.0	8.4	12.3	N/A	N/A	N/A	Compliance Probe	
GP-2	9:30	0.0	2.9	18.0	N/A	N/A	N/A		
GP-3	9:45	0.0	2.5	17.5	N/A	N/A	N/A		
GP-4	8:00	0.0	4.3	14.6	N/A	N/A	N/A	Intermediate Non-Compliance Probe	
GP-4R	8:10	0.0	3.5	15.7	N/A	N/A	N/A	Compliance Probe	
GP-5	7:45	0.0	0.1	20.3	N/A	N/A	N/A		
GP-6	8:50	0.0	3.9	16.7	N/A	N/A	N/A		
GP-8	9:15	0.0	0.4	20.0	N/A	N/A	N/A		
ADDITIONAL COMMENTS:									
NM = Not Measured									
N/A = Not Available									

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

Inspectors Names: Justin Guerra/ Garrett Rose

Date: 7/31/15

Time On Site 7:00 – 15:30

Weather: Sunny

Temperature: 90° F

Signature: Justin Guerra

CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			None	
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						



September 10, 2015

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Monthly Progress Report – August 2015

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this monthly report summarizes site activities completed during August 2015 by Woodard & Curran.

Summary of Monthly Activities

As discussed in previous Monthly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period:

- Between July 31, 2015 and August 4, 2015 the flare operated.
- Between August 7, 2015 and August 11, 2015 the flare operated.
- Between August 14, 2015 and August 18, 2015 the flare operated.
- Between August 21, 2015 and August 25, 2015 the flare operated.
- Between August 28, 2015 and September 1, 2015 the flare operated.

As discussed in the previous monthly report and in a letter submitted to USEPA on May 26, 2015, Request to Modify Gas Monitoring and Well Field Tuning Frequency, Woodard & Curran proposed that gas probe monitoring and well field tuning be reduced from monthly to quarterly monitoring. In an email dated September 10, 2015, USEPA approved the request to Modify Gas Monitoring and Well Field Tuning Frequency from monthly to quarterly monitoring. Based on this approval the gas monitoring and well field tuning schedule was changed with the next being scheduled in November.

The monthly site visit was conducted on August 31, 2015. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1 through GP-6, GP-8, GP-1R, and GP-4R. As discussed in previous monthly reports Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in November 2015. The compliance points for these locations have been replaced with GP-1R and GP-4R.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.



A summary of pertinent information includes the following:

- The flare inlet flow rate, temperature, and methane level measured at 382 cubic feet per minute (cfm), 1782°F, and 29.2% respectively.
- The methane levels in all compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know whether you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures

cc: Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Paul Kulpa, RIDEM
David Moreira, Waste Management

DATE:	8/31/2015	WEATHER CONDITIONS:	Sunny	MONITORED BY:	G. Rose/ G. Amato
TEMP:	90	SYSTEM CONDITION:	ON Line	BAROMETRIC PRESSURE START:	29.51
Flare Inlet Temp:	1782	Flare Outlet Temp:	1119	BAROMETRIC PRESSURE END:	29.53
SYSTEM LEVELS				FLOW (cfm):	382

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
FLARE	7:20	29.2	28.2	1.0	-	1.70	---	---	
BLOWER	7:15	29.0	28.2	1.0	72.0	-10.00	---	---	
W-1	13:55	57.7	32.4	1.1	90	-2.6	75%	75%	
W-2	13:40	36.9	29.9	1.5	96	-4.2	100%	100%	
W-3	13:25	4.2	2.6	17.9	NA	-2	0%	0%	
W-4	13:15	0.0	0.2	19.6	84	-3	0%	0%	
W-5	13:00	0.0	0.0	20.2	78	-2	0%	0%	
W-6	12:55	3.0	23.1	2.7	90	0.17	0%	0%	
W-7	12:00	36.2	27.2	5.9	74	-3.5	25%	25%	
W-8	12:45	19.9	21.2	3.0	78	-6.4	100%	100%	
W-9	11:45	26.3	27.9	0.4	80	-7.8	100%	100%	
W-10	11:25	33.6	31.4	0.1	82	-6	100%	100%	
W-11	11:15	31.5	29.6	0.1	NA	-6.5	100%	100%	
W-12	11:05	31.9	30.9	0.2	90	-4	100%	100%	
W-13	10:55	43.7	33.2	1.8	70	-7	100%	100%	
W-14	14:45	0.0	0.2	19.3	82	-2.6	0%	0%	
W-15	14:15	51.5	35.6	0.2	95	-2	100%	100%	
W-16	14:30	43.4	34.6	0.1	95	-4.5	100%	100%	
W-17	14:55	5.4	2.8	18.2	NA	-2.6	50%	50%	
W-18	10:45	51.3	36.4	1.3	92	-3	100%	100%	
Building	7:00	0.0	0.0	19.8	85.0	---	---	---	

NOTE: ADDITIONAL COMMENT SPACE ON BACK

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (%)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
GP-1	9:25	0.0	6.4	13.5	N/A	N/A	N/A	Intermediate Non-Compliance Probe
GP-1R	9:35	0.0	12.9	6.1	N/A	N/A	N/A	Compliance Probe
GP-2	8:30	0.0	2.2	18.0	N/A	N/A	N/A	
GP-3	9:10	0.0	2.1	17.8	N/A	N/A	N/A	
GP-4	9:50	0.0	3.3	15.5	N/A	N/A	N/A	Intermediate Non-Compliance Probe
GP-4R	10:00	0.0	2.8	16.6	N/A	N/A	N/A	Compliance Probe
GP-5	10:15	0.0	0.0	19.9	N/A	N/A	N/A	
GP-6	8:00	0.0	2.8	17.5	N/A	N/A	N/A	
GP-8	8:50	0.0	0.0	19.8	N/A	N/A	N/A	

ADDITIONAL COMMENTS:
 NM = Not Measured
 N/A = Not Available

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

Inspectors Names: Garrett Rose & Gio Amato

Date: 8/31/15

Time On Site 7:00 – 15:00

Weather: Sunny

Temperature: 90° F

Signature: Garrett Rose

CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			None	
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						



April 12, 2016

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Quarterly Progress Report – September 2015 thru December 2015

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this quarterly report summarizes site activities completed between September 1, 2015 and December 31, 2015 by Woodard & Curran. As discussed in the previous monthly report and in a letter submitted to USEPA on May 26, 2015, Request to Modify Gas Monitoring and Wellfield Tuning Frequency, Woodard & Curran proposed that gas probe monitoring and wellfield tuning be reduced from monthly to quarterly monitoring. In an email dated September 10, 2015, USEPA approved the request to Modify Gas Monitoring and Wellfield Tuning Frequency from monthly to quarterly monitoring. Based on this approval the first quarterly monitoring event was completed on November 12, 2015. The quarterly monitoring events for 2016 are tentatively scheduled to be completed in March, June, September, and December.

Summary of Monthly Activities

As discussed in previous Monthly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period September 1, 2015 thru December 31, 2015:

- Between September 4, 2015 and September 8, 2015 the flare operated.
- Between September 11, 2015 and September 15, 2015 the flare operated.
- Between September 18, 2015 and September 22, 2015 the flare operated.
- Between September 25, 2015 and September 29, 2015 the flare operated.
- Between October 2, 2015 and October 7, 2015 the flare operated.
- Between October 9, 2015 and October 14, 2015 the flare operated.
- Between October 17, 2015 and October 21, 2015 the flare operated.
- Between October 24, 2015 and October 28, 2015 the flare operated.
- Between November 1, 2015 and November 6, 2015 the flare operated.
- Between November 9 and November 14, 2015 the flare operated.
- Between November 18, 2015 and November 23, 2015 the flare operated.
- Between December 7, 2015 and December 11, 2015 the flare operated.
- Between December 14, 2015 and December 18, 2015 the flare operated.



On October 14, 2015, U.S. Ecology (formerly EQ Environmental) of Wrentham, Massachusetts was on-Site to remove 2,000 gallons of non-hazardous condensate from the condensate storage tank. A copy of the Non-hazardous manifest is attached.

On December 7, 2015, U.S. Ecology (formerly EQ Environmental) of Wrentham, Massachusetts was on Site to remove 2,000 gallons of non-hazardous condensate from the condensate storage tank. A copy of the Non-hazardous manifest is attached.

Woodard & Curran conducted the semi-annual flare inspection on December 7, 2015. The flare (flame arrestor, burners, flame detector lens, and IRIS output), air compressor, knockout sump and blowers #1 and #2 are operating properly. Cleaning of the flame arrestor was performed to remove minor dust and dirt in the housing and arrestor plates.

The quarterly site visit was conducted on November 12, 2015. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1R, GP-2, GP-3, GP-4R, GP-5, GP-6 and GP-8. As discussed in previous monthly reports Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in November 2015. The compliance points for these locations have been replaced with GP-1R and GP-4R.

On November 12, 2015, the annual inlet flare sample was collected and submitted for laboratory analysis of volatile organic compounds (VOCs) using EPA Method TO-15. The sample was collected and submitted to Con-Test Laboratories of East Long Meadow, Massachusetts for analysis. Woodard & Curran will be submitting the results of this testing under a separate cover that will compare the 2015 results to the 2014 inlet flare sample results.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.

A summary of pertinent information includes the following:

- The flare inlet flow rate, inlet methane content and combustion temperature measured 461 cubic feet per minute (cfm), 26.9% and 1812°F respectively.
- The methane levels in all compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know if you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures



cc: Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Paul Kulpa, RIDEM
David Moreira, Waste Management

DATE: 11/12/2015	WEATHER CONDITIONS: Cloudy	MONITORED BY: S. Driscoll
TEMP: 46	SYSTEM CONDITION: ON Line	BAROMETRIC PRESSURE START: 29.68
Flare Inlet Temp: 1812	Flare Outlet Temp: 1083	BAROMETRIC PRESSURE END: 29.47
SYSTEM LEVELS		FLOW (cfm): 461

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
FLARE	7:05	26.9	28.4	1.2	NA	1.8	---	---	
BLOWER	7:10	27.0	28.0	1.9	66.0	-15.00	---	---	
W-1	9:40	62.4	34.8	1.3	50	-5.2	75%	75%	
W-2	9:30	50.7	35.6	0.5	70	-3.6	100%	100%	
W-3	9:20	25.2	19.4	6.9	NA	-2.8	0%	0%	
W-4	9:10	0.0	0.5	20.6	46	-4.5	0%	0%	
W-5	9:00	0.0	0.1	20.4	38	-2.5	0%	0%	
W-6	8:50	3.4	30.8	0.3	48	0	0%	0%	
W-7	8:40	55.0	39.6	0.9	38	-5.0	25%	25%	
W-8	8:30	20.6	25.8	0.7	70	-8.0	100%	100%	
W-9	8:20	23.8	27.7	0.0	78	-10.5	100%	100%	
W-10	8:10	35.4	31.7	0.0	80	-8.5	100%	100%	
W-11	8:00	29.5	30.3	0.0	NA	-9.0	100%	100%	
W-12	7:50	27.0	30.7	0.0	80	-7.0	100%	100%	
W-13	7:40	42.6	35.6	0.0	50	-10.0	100%	100%	
W-14	10:20	0.3	0.9	20.2	40	-3.6	0%	0%	
W-15	10:10	41.5	34.4	0.0	94	-5.0	100%	100%	
W-16	10:00	21.0	15.8	11.7	48	-5.2	100%	100%	
W-17	9:50	28.7	25.6	1.6	NA	-5.0	50%	50%	
W-18	7:30	58.8	40.0	0.0	66	-7.0	100%	100%	
Building	7:00	0.0	0.0	20.8	50.0	---	---	---	

COMPLIANCE PROBE LEVELS **NOTE: ADDITIONAL COMMENT SPACE ON BACK**

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (%)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
GP-1R	13:45	0.0	13.1	7.1	N/A	N/A	N/A	
GP-2	12:50	0.0	2.7	17.4	N/A	N/A	N/A	
GP-3	13:30	0.0	1.6	18.5	N/A	N/A	N/A	
GP-4R	14:05	0.0	3.0	17.6	N/A	N/A	N/A	
GP-5	14:30	0.0	4.7	15.5	N/A	N/A	N/A	
GP-6	12:30	0.0	2.9	17.4	N/A	N/A	N/A	
GP-8	13:15	0.0	1.0	18.5	N/A	N/A	N/A	

ADDITIONAL COMMENTS:
 NM = Not Measured
 N/A = Not Available

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

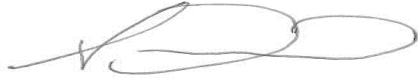
Inspectors Names: S. Driscoll

Date: 11/12/15

Time On Site 7:00 – 15:00

Weather: Cloudy

Temperature: 46° F

Signature:  _____

CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			None	
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						

Maintenance Inspection
December 7, 2015

Blower #1 hour meter:

Amperage		Voltage	
Phase A	16.7	Phases A to B	498
Phase B	16.0	Phases A to C	500
Phase C	15.8	Phases B to C	503

- Coupling between motor and blower was in good condition.
- All hardware appears to be tight and intact.

Blower #2 hour meter:		Voltage	
Amperage			
Phase A	16.3	Phases A to B	497
Phase B	15.2	Phases A to C	499
Phase C	15.9	Phases B to C	500

- Coupling between motor and blower was in good condition.
- All hardware appears to be tight and intact.

Flare:

- Flare was off upon arrival. Sean Driscoll replaced the propane tank and successfully restarted the system. After all blower inspections were conducted the flare was started and left running per the schedule.
- Removed flame arrestor for inspection: clean, minimal dust/dirt in the housing and arrestor plates.
- Check burners – visually. Some minimal insulation debris is laying on the burners, but not hampering operation and should blow off during normal flow.
- Wiped the flame detector lens.
- Visual inspection of stack reveals more insulation has been dislodged and there is small pieces of insulation on the caps of the burners, upper deck (top of burners) and on the floor of the stack. Some hot spot pitting can be seen on the outside of the stack.

Air compressor:

- Oil was changed.
- V-belt appeared to be in good shape and adjusted tension.
- Condensate traps were drained.

Knockout sump:

- Appears to be functioning fine.

Storage tank:

- The tank level panel display was off. Sean commented that he just pumped the tank and the gauge did not seem to be working. He is in the process of having the system changed. Someone has worked on the system since last inspection and it apparently needs more attention.

Summary:

Blowers appeared to be running fine, as is all other mechanical equipment. The flare was started and appears to be running well, however there is significantly more damage to the insulation during this inspection than what was found during the inspection last May.

Performed by:

Bill DePascale
Technician 3
Woodard & Curran







EQ Northeast, Inc.
185 Industrial Road
Wrentham, MA 02093

Emergency Response #:
Phone: (508) 384-6151
Fax: (508) 384-6028

Work Order: 7247000
Reference Code:
Arrival Time:
Date: 10/12/2015
Prepared By: Wanda Tobey

BILLING INFORMATION

Name: WOODARD & CURRAN INC **Contact:**
Acct. #: 13134-99 **Title:**
Phone: (866) 702-6371 **Phone:**
Addr: 35 NEW ENGLAND BUSINESS **Mobile:** () -
CENTERSUITE 180 **PO / Rel:**
ANDOVER, MA 01810

GENERATOR INFORMATION

Name: FORMER L&RR LANDFILL **Contact:**
EPA #: RID093212439 (ID: 73759) **Title:**
Phone: (860) 883-3798 **Phone:** () -
Addr: OFF OLD OXFORD RD. **Mobile:** () -
NORTH SMITHFIELD, RI 02876

TSDF INFORMATION

TSDF: LIQUID ENVIRONMENTAL SOLUTIONS **TSDF Contact:** RICK DERBY **EPA #:** MAC300005808
Addr: 527 PLEASANT STREET **Phone:** (508) 236-6001 301
ATTLEBORO, MA 02703 **Fax:** () -

Manifest: _____ **TSDF:** LIQUID ENVIRONMENTAL SOLUTIONS **EPA #:** MAC300005808
TSDF Contact: RICK DERBY **Addr:** 527 PLEASANT STREET **Phone:** (508) 236-6001 301
ATTLEBORO, MA 02703 **Fax:** () -

HM DESCRIPTION

1. Non Hazardous Liquid Waste, Not DOT Not RCRA Regulated, None, None, None
Approval Code: 100567 (44872) **Waste Codes:** NONE
Hand. Instruct:

#	OF CONT.	TYPE	QUANTITY	UNIT
1	1	TT	2000	G

EQUIPMENT ACKNOWLEDGMENT

Customer acknowledges that this equipment is suitable for the transportation, storage or other service to be provided.

Tractor # H18 **Trailer #** _____ **Tanker #** _____ **Roll-Off Box #** _____ **w/ liner?** _____ **Spotted #** _____ **Picked up #** _____ **Vac Fee** _____

Driver Signature _____ **Date** _____ **Customer Signature** _____ **Date** _____

Pickup	Date	Time	Explanation
Arrive at Shipper:		7:00	Pump out sump water
Start Loading:			
Finish Loading:			
Leave Site:		8:00	

SHIPMENT RECEIVED IN APPARENT GOOD ORDER (CONTENTS UNKNOWN) SUBJECT TO THE TERMS AND CONDITIONS OF THE UNIFORM STRAIGHT BILL OF LADING AND ANY GOVERNING CLASSIFICATIONS AND TARIFFS LAWFULLY ON FILE ON THE DATE OF SHIPMENT.

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

Driver Signature _____ **Date** 10-14-13 **Customer Signature** _____ **Date** 10/14/13

Delivery	Date	Time	Explanation
Arrive at TSDF:			
Start Unloading:			
Finish Unloading:			
Leave Site:			

Driver Signature _____ **Date** _____ **Receiver Signature** _____ **Date** _____

Please comment on the job so we can continue to provide better service: Excellent Satisfactory Poor



EQ Northeast, Inc.
185 Industrial Road
Wrentham, MA 02093

Emergency Response #:
Phone: (508) 384-6151
Fax: (508) 384-6028

Work Order: 7421700
Reference Code:
Arrival Time:
Date: 12/03/2015
Prepared By: Wanda Tobey

BILLING INFORMATION

Name: WOODARD & CURRAN INC
Acct. #: 13134-99
Phone: (866) 702-6371
Addr: 35 NEW ENGLAND BUSINESS CENTERSUITE 180 ANDOVER, MA 01810

Contact: Title: Phone: Mobile: () - PO / Rel:

GENERATOR INFORMATION

Name: FORMER L&RR LANDFILL
EPA #: RID093212439 (ID: 73759)
Phone: (860) 883-3798
Addr: OFF OLD OXFORD RD. NORTH SMITHFIELD, RI 02876

Contact: Title: Phone: () - Mobile: () -

TSDf INFORMATION

TSDf: LIQUID ENVIRONMENTAL SOLUTIONS
Addr: 527 PLEASANT STREET ATTLEBORO, MA 02703

TSDf Contact: RICK DERBY
EPA #: MAC300005808
Phone: (508) 236-6001 301
Fax: () -

Manifest: 013643138JJK
TSDf Contact: RICK DERBY

TSDf: LIQUID ENVIRONMENTAL SOLUTIONS
Addr: 527 PLEASANT STREET ATTLEBORO, MA 02703

EPA #: MAC300005808
Phone: (508) 236-6001 301
Fax: () -

HM DESCRIPTION

1. Non Hazardous Liquid Waste, Not DOT Not RCRA Regulated, None, None, None
Approval Code: 100567 (44872) Waste Codes: NONE
Hand. Instruct:

# OF CONT.	TYPE	QUANTITY	UNIT
1	TT	2,000	Ⓞ

EQUIPMENT ACKNOWLEDGMENT

Customer acknowledges that this equipment is suitable for the transportation, storage or other service to be provided.

Tractor # 497 Trailer # _____ Tanker # _____ Roll-Off Box # _____ w/ liner? _____ Spotted # _____ Picked up # _____ Vac Fee _____

Driver Signature	Date	Customer Signature	Date
Pickup	Date	Time	Explanation
Arrive at Shipper:	12/7	7:45	
Start Loading:			Load
Finish Loading:			
Leave Site:			

SHIPMENT RECEIVED IN APPARENT GOOD ORDER (CONTENTS UNKNOWN) SUBJECT TO THE TERMS AND CONDITIONS OF THE UNIFORM STRAIGHT BILL OF LADING AND ANY GOVERNING CLASSIFICATIONS AND TARIFFS LAWFULLY ON FILE ON THE DATE OF SHIPMENT.

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

Driver Signature	Date	Customer Signature	Date
<i>Rick Derby</i>	12/7	<i>[Signature]</i>	12/7/15

Delivery	Date	Time	Explanation
Arrive at TSDf:			
Start Unloading:			
Finish Unloading:			
Leave Site:			

Driver Signature	Date	Receiver Signature	Date

Please comment on the job so we can continue to provide better service: Excellent Satisfactory Poor



May 6, 2016

Ms. Anna Krasko
U.S. EPA Region 1
Mail Code: OSRR07-1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Landfill and Resource Recovery, Inc. Superfund Site
Quarterly Progress Report – January 2016 thru March 2016

Dear Ms. Krasko:

On behalf of the L&RR Performing Settling Defendants (Group) and pursuant to the Settlement Agreement and Consent Decree, this quarterly report summarizes site activities completed between January 1, 2016 and March 31, 2016 by Woodard & Curran. As discussed in the previous reporting, the gas probe monitoring and wellfield tuning changed from monthly to quarterly frequency. Based on this change the first quarterly monitoring event for 2016 was completed on March 15, 2016. The remaining quarterly monitoring events for 2016 are tentatively scheduled to be completed in June, September, and December.

Summary of Monthly Activities

As discussed in previous Monthly and Quarterly Progress Reports, on October 24, 2014 the flare system operation was configured to operate on a timed on-off-on cycle. The flare was programmed to operate on a 5 days on and 2 days off cycle through January 15, 2015. On January 15, 2015, the flare timer was re-configured to operate on a 4 days on and 3 days off cycle. The following is a summary of flare operation during this reporting period January 1, 2016 thru March 31, 2016:

- Between January 4, 2016 and January 8, 2016 the flare operated.
- Between January 12, 2016 and January 16, 2016 the flare operated.
- Between January 18, 2016 and January 22, 2016 the flare operated.
- Between January 29, 2016 and February 2, 2016 the flare operated.
- Between February 24, 2016 and February 28, 2016 the flare operated.
- Between March 2, 2016 and March 6, 2016 the flare operated.
- Between March 9, 2016 and March 13, 2016 the flare operated.
- Between March 15, 2016 and March 19, 2016 the flare operated.
- Between March 22, 2016 and March 26, 2016 the flare operated.
- Between March 29, 2016 and April 2, 2016 the flare operated.

The flare was shut down for an extended period between February 2 through February 24, 2016 due to a power outage. The power was restored on February 24, 2016 and the flare was restarted, the flare has been operating as programmed since.

On March 15, 2016, U.S. Ecology (formerly EQ Environmental) of Wrentham, Massachusetts was on-Site to remove 2,733 gallons of non-hazardous condensate from the condensate storage tank. A copy of the Non-hazardous manifest is attached.



The quarterly site visit was conducted on March 15, 2016. The visit included a complete round of monitoring for gas wells W-1 through W-18 and perimeter probes GP-1R, GP-2, GP-3, GP-4R, GP-5, GP-6 and GP-8. As discussed in previous monthly reports Woodard & Curran proposed to end the monitoring perimeter probes GP-1 and GP-4 beginning in November 2015. The compliance points for these locations have been replaced with GP-1R and GP-4R.

On November 12, 2015, the annual inlet flare sample was collected and submitted for laboratory analysis of volatile organic compounds (VOCs) using EPA Method TO-15. The sample was collected and submitted to Con-Test Laboratories of East Long Meadow, Massachusetts for analysis. Woodard & Curran will be submitting the results of this testing under a separate cover that will compare the 2015 results to the 2014 inlet flare sample results.

A landfill inspection was conducted to identify any corrective measures for major landfill components that include the security system, cover integrity, stormwater management system, groundwater and gas monitoring wells, and collection system. The monitoring report and inspection log are enclosed.

A summary of pertinent information includes the following:

- The flare inlet flow rate, inlet methane content and combustion temperature measured 461 cubic feet per minute (cfm), 26.9% and 1812°F respectively.
- Methane levels in compliance probe GP-1R exceeded acceptable limits on March 15, 2016 during the Quarterly Inspection. During the inspection, it was discovered that gas extraction well W-11 was disconnected from the gas extraction piping. The extraction well was reconnected to the extraction system. Additional readings were collected at GP-1R on March 18, 2016 and methane levels were within acceptable limits. The methane levels in all other compliance probes were within acceptable limits.
- Methane levels in the on-site buildings were 0%.

Please let me know if you have any questions or need additional information.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Alan Benevides".

Alan Benevides, P.E.
Senior Vice President

aab/ams

Enclosures

cc: Karen L. Douglas, Corning, Inc.
Angela Knight, Corning, Inc.
Roy Giarrusso, Giarrusso Norton Cooley & McGlone, PC
Paul Kulpa, RIDEM
David Moreira, Waste Management

Table 1
Quarterly Site Check
 Landfill Resource Recovery Superfund Site
 North Smithfield, Rhode Island

Date: 3/15/2016
 Personnel: S. Driscoll / G. Amato
 Weather: Cloudy Rain Showers

Flare System Status: ON (ON/OFF)
 Flare Inlet Temperature: 1868 (Deg F)
 Flare Outlet Temperature: 1175 (Deg F)
 Flare Flow Rate: 397 (CFM)
 Air Dryer Runtime: NM (Hours)

Blower A Runtime (HM-1): NM (Hours)
 Blower B Runtime (HM-2): NM (Hours)
 Air Compressor Runtime (HM-3): NM (Hours)

Propane Pressure: 45 (PSI)
 Nitrogen Pressure: 100 (PSI)
 Blower in Operation: A (A/B)
 Condensate #3 Pump: 194589 (cycles)

Barometric Pressure (Start): 29.53 (In-Hg)

Barometric Pressure (Start): 29.53 (In-Hg)

Condensate Tank Level: 0 (Inches)

WELL NO.	TIME	CH4 (%)	CO2 (%)	O2 (%)	Balance (%)	TEMP. (°F)	PRESSURE ("H2O)	VALVE POSITION (BEFORE)	VALVE POSITION (AFTER)	COMMENTS (OBSERVATIONS & ACTIONS TAKEN)
BUILDING	7:00	0.0	0.1	20.6	79.3	72	---	---	---	
Before Wellfield Adjustments										
BLOWER INLET	10:45	23.2	17.4	10.2	49.2	50	-8.5	---	---	
FLARE INLET	10:50	23.5	17.5	10.2	49.1	NA	+2.0	---	---	
After Wellfield Adjustments										
BLOWER INLET	15:45	41.4	30.0	0.3	28.0	50	-10.5	---	---	
FLARE INLET	15:50	41.4	30.1	0.3	28.2	NA	+2.0	---	---	
Extraction Wells										
W-1	11:40	55.5	33.9	0.0	10.5	50	0	75%	75%	
W-2	11:50	57.1	36.1	0.0	6.8	82	-1.0	100%	100%	
W-3	12:00	65.7	33.8	0.0	0.7	0	0	0%	0%	
W-4	12:10	60.8	30.3	0.0	8.9	44	+0.38	0%	0%	
W-5	12:25	34.1	23.0	0.0	42.9	41	+0.6	0%	0%	
W-6	12:35	7.5	30.9	0.1	61.6	48	+3.0	0%	0%	
W-7	13:00	59.8	39.9	0.0	0.3	34	+0.42	25%	25%	
W-8	12:50	34.9	26.3	0.3	38.7	80	-3.0	100%	100%	
W-9	13:45	39.8	30.0	0.0	30.6	88	-4.0	100%	100%	
W-10	13:30	49.2	32.6	0.0	18.2	86	-2.0	100%	100%	
W-11	14:40	35.0	26.1	0.0	39.4	80	-4.0	100%	100%	Well disconnected from gas extraction line. Reconnected and continued collecting readings
W-12	14:55	59.1	40.0	0.0	0.7	50	0.0	100%	100%	
W-13	15:10	59.3	38.1	0.0	2.5	40	-3.0	100%	100%	
W-14	11:20	21.0	8.8	6.4	63.8	40	-1.2	0%	0%	
W-15	15:30	62.0	38.0	0.0	0.0	84	-1.0	100%	100%	
W-16	13:15	54.1	35.9	0.0	10.0	92	-1.4	100%	100%	
W-17	11:30	37.0	24.4	0.0	38.6	0	0	50%	50%	
W-18	11:10	56.7	38.2	0.6	3.6	50	-0.6	100%	100%	
Compliance Gas Probes										
GP-1R	8:00	3.6	19.8	0.0	76.5	--	--	--	--	Additional readings collected in Marhc 18, 2016 see notes below.
GP-2	9:35	0.0	2.4	19.5	78.2	--	--	--	--	
GP-3	10:15	0.0	1.3	20.4	78.3	--	--	--	--	
GP-4R	7:40	0.1	12.4	2.0	85.6	--	--	--	--	
GP-5	7:30	0.0	2.6	18.5	78.7	--	--	--	--	
GP-6	9:15	0.0	2.3	19.1	78.5	--	--	--	--	
GP-8	9:55	0.0	0.1	21.5	78.3	--	--	--	--	
Additional Comments										
NM = Not Measured.										
W-11 was disconnected from the gas extraction line within the well head control box. Connection was temporarily repaired as confined space entry is required to make permanent repair										
Additional Reading collected to confirm temporary repair working:										
(3/18/16) GP-1R: CH4 = 0.4%; CO2 = 9.3%; O2 = 10.3%; Bal = 80%										

**TABLE 2-1
L&RR SUPERFUND SITE
INSPECTION LOG**

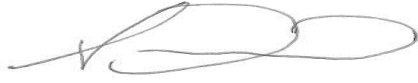
Inspectors Names: S. Driscoll / G. Amato

Date: 3/15/16

Time On Site 7:00 – 16:00

Weather: Cloudy Rain Showers

Temperature: 45° F

Signature:  _____

CORRECTIVE MEASURES						
Feature	Trouble Signs	Status (Adequate or Inadequate)	Problem Location	Description of Problem	Action	Date
1. Security System a. Gate b. Fence c. Locks d. Signs	Inoperative Holes Inoperative Missing, Unreadable	Adequate	Gate	Bent	None	
2. Cover Integrity a. Surface Features b. Slopes c. Vegetation d. Breakouts	Animal Burrows, Other Holes, Cracks Washouts and Sloughing Brushes/Tree Growth, Bare Spots Washouts and Discoloration	Adequate			None	
3. Stormwater Management System a. Diversion Swales b. Catch Basins c. Stilling Wells d. Perimeter Channels e. Culverts f. Detention Basins	Ponding Water, Filling and Sediment Filling with Sediment, Blocked by Debris Filling with Sediment Filling with Sediment, Riprap Lining Disturbed Blocked, Damaged, Riprap Outlets Disturbed Filling with Sediment, Riprap Outlets Disturbed	Adequate			None	
4. Groundwater Monitoring Wells a. Locking Cap b. Protective Casing c. Concrete Collar d. Local Erosion	Broken, No Lock Cracked, Missing Cracked, Missing Ponding, Water Channels	Adequate			None	
5. Landfill Gas Monitoring and Collection System a. LFG Extraction Wells b. LFG Migration Probes c. Control Panel	Physical Damage to Casing, Wellhead, Sampling Port Physical Damage to Casing Recording Paper and Pens Empty	Adequate			None	
6. Permanent Monuments a. Bench Marks b. Settlement Monuments	Tilting/Heaving Tilting /Heaving	Adequate			None	
COMMENTS: Refer to cover letter for the status of additional system upgrades and repairs scheduled for implementation.						



EQ Northeast, Inc.
185 Industrial Road
Wrentham, MA 02093

Emergency Response #:
Phone: (508) 384-6151
Fax: (508) 384-6028

Work Order: 7761200
Reference Code:
Arrival Time:
Date: 03/11/2016
Prepared By: Wanda Tobey

BILLING INFORMATION

Name: WOODARD & CURRAN INC
Acct. #: 13134-99
Phone: (866) 702-6371
Addr: 35 NEW ENGLAND BUSINESS CENTERSUITE 180 ANDOVER, MA 01810

Contact: Title: Phone: Mobile: () - PO / Rel:

GENERATOR INFORMATION

Name: FORMER L&RR LANDFILL
EPA #: RID093212439 (ID: 73759)
Phone: (401) 578-9976
Addr: OFF OLD OXFORD RD. NORTH SMITHFIELD, RI 02876

Contact: Title: Phone: () - Mobile: () -

TSDF INFORMATION

TSDF: TRADEBE T&R OF STOUGHTON, LLC
Addr: 441 REAR CANTON STREET STOUGHTON, MA 02072

TSDF Contact: Maureen/Brian
Contact Phone: (888) 276-0886

EPA #: MAD062179890
Phone: (781) 297-3530
Fax: (781) 344-3020

Manifest: _____
TSDF Contact: Maureen/Brian
Contact Phone: (888) 276-0886

TSDF: TRADEBE T&R OF STOUGHTON, LLC
Addr: 441 REAR CANTON STREET STOUGHTON, MA 02072

EPA #: MAD062179890
Phone: (781) 297-3530
Fax: (781) 344-3020

HM DESCRIPTION

1. Non Hazardous Liquid Waste, Not DOT Not RCRA Regulated, None, None, None
Approval Code: 1000121105 (74563) Waste Codes: NONE
Hand. Instruct:

# OF CONT.	TYPE	QUANTITY	UNIT
1	TT	x2733	g

EQUIPMENT ACKNOWLEDGMENT

Customer acknowledges that this equipment is suitable for the transportation, storage or other service to be provided.

Tractor # _____ Trailer # _____ Tanker # 408 Roll-Off Box # _____ w/ liner? Spotted # _____ Picked up # _____ Vac Fee _____
James P. Smith Driver Signature Date 3/15/16 Customer Signature Date 3-15-16

Pickup	Date	Time	Explanation
Arrive at Shipper:	<u>3/15/16</u>	<u>8:00</u>	<u>Pump water for disposal to ECC</u>
Start Loading:		<u>8:30</u>	
Finish Loading:		<u>9:40</u>	
Leave Site:		<u>9:50</u>	

SHIPMENT RECEIVED IN APPARENT GOOD ORDER (CONTENTS UNKNOWN) SUBJECT TO THE TERMS AND CONDITIONS OF THE UNIFORM STRAIGHT BILL OF LADING AND ANY GOVERNING CLASSIFICATIONS AND TARIFFS LAWFULLY ON FILE ON THE DATE OF SHIPMENT.

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

Driver Signature	Date	Customer Signature	Date

Delivery	Date	Time	Explanation
Arrive at TSDF:			
Start Unloading:			
Finish Unloading:			
Leave Site:			

Driver Signature _____ Date _____ Receiver Signature _____ Date _____

Please comment on the job so we can continue to provide better service: Excellent Satisfactory Poor

APPENDIX B: LABORATORY ANALYTICAL REPORTS AND DATA VALIDATION SUMMARIES

APPENDIX B: LABORATORY ANALYTICAL REPORTS AND DATA VALIDATION SUMMARIES



ANALYTICAL REPORT

Lab Number:	L1609862
Client:	Woodard & Curran 40 Shattuck Road Suite 110 Andover, MA 01810
ATTN:	Samantha Olney
Phone:	(978) 557-8150
Project Name:	L&RR
Project Number:	224263
Report Date:	04/12/16

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609862-01	MW-201	WATER	NORTH SMITHFIELD, RI	04/05/16 08:52	04/05/16
L1609862-02	MW-202	WATER	NORTH SMITHFIELD, RI	04/05/16 07:47	04/05/16
L1609862-03	MW-102A	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1609862-04	MW-103A	WATER	NORTH SMITHFIELD, RI	04/05/16 15:27	04/05/16
L1609862-05	MW-104A	WATER	NORTH SMITHFIELD, RI	04/05/16 14:22	04/05/16
L1609862-06	CW-5B	WATER	NORTH SMITHFIELD, RI	04/05/16 09:52	04/05/16
L1609862-07	CW-7B	WATER	NORTH SMITHFIELD, RI	04/05/16 12:42	04/05/16
L1609862-08	SW-5	WATER	NORTH SMITHFIELD, RI	04/05/16 14:45	04/05/16
L1609862-09	SW-8	WATER	NORTH SMITHFIELD, RI	04/05/16 11:50	04/05/16
L1609862-10	SW-10	WATER	NORTH SMITHFIELD, RI	04/05/16 13:18	04/05/16
L1609862-11	SW-16	WATER	NORTH SMITHFIELD, RI	04/05/16 13:28	04/05/16
L1609862-12	LCH-3	WATER	NORTH SMITHFIELD, RI	04/05/16 13:42	04/05/16
L1609862-13	LCH-5	WATER	NORTH SMITHFIELD, RI	04/05/16 10:30	04/05/16
L1609862-14	DUP-1	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1609862-15	EQUIPMENT BLANK	WATER	NORTH SMITHFIELD, RI	04/05/16 13:55	04/05/16

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Case Narrative

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

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

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

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

HOLD POLICY

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

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

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Case Narrative (continued)

Report Submission

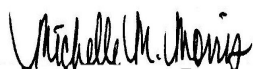
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

BOD, 5 day

L1609862-15: The Equipment Blank has a concentration above the reporting limit; however, re-analysis could not be performed due to expired holding time.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 04/12/16

INORGANICS & MISCELLANEOUS

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-01
Client ID: MW-201
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 08:52
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	ND		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:25	44,350.1	AT
Chemical Oxygen Demand	5.7	J	mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:50	44,410.4	SD
BOD, 5 day	ND		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	2.47		mg/l	0.500	0.054	1	-	04/09/16 05:22	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-02
Client ID: MW-202
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 07:47
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	ND		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:25	44,350.1	AT
Chemical Oxygen Demand	10.	J	mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:50	44,410.4	SD
BOD, 5 day	ND		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	85.5		mg/l	5.00	0.541	10	-	04/11/16 19:07	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-03
Client ID: MW-102A
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	0.515		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:26	44,350.1	AT
Chemical Oxygen Demand	22.		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:50	44,410.4	SD
BOD, 5 day	8.5		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	1.91		mg/l	0.500	0.054	1	-	04/09/16 05:46	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-04
Client ID: MW-103A
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 15:27
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	0.031	J	mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:30	44,350.1	AT
Chemical Oxygen Demand	ND		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:50	44,410.4	SD
BOD, 5 day	ND		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	3.53		mg/l	0.500	0.054	1	-	04/09/16 05:58	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-05
Client ID: MW-104A
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 14:22
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	11.0		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:31	44,350.1	AT
Chemical Oxygen Demand	56.		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:51	44,410.4	SD
BOD, 5 day	37.		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	57.9		mg/l	5.00	0.541	10	-	04/11/16 19:19	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-06
Client ID: CW-5B
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 09:52
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	0.066	J	mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:31	44,350.1	AT
Chemical Oxygen Demand	ND		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:51	44,410.4	SD
BOD, 5 day	ND		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	1.86		mg/l	0.500	0.054	1	-	04/09/16 06:46	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-07
Client ID: CW-7B
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 12:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	0.033	J	mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:34	44,350.1	AT
Chemical Oxygen Demand	8.1	J	mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:55	44,410.4	SD
BOD, 5 day	ND		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	2.50		mg/l	0.500	0.054	1	-	04/09/16 07:22	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-08
Client ID: SW-5
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 14:45
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	2.90		mg/l	0.500	0.054	1	-	04/09/16 07:34	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-09
Client ID: SW-8
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 11:50
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	10.2		mg/l	0.500	0.054	1	-	04/09/16 07:46	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-10
Client ID: SW-10
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 13:18
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	16.6		mg/l	0.500	0.054	1	-	04/09/16 07:58	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-11
Client ID: SW-16
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 13:28
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	7.33		mg/l	0.500	0.054	1	-	04/09/16 08:10	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-12
Client ID: LCH-3
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 13:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	1.45		mg/l	0.500	0.054	1	-	04/09/16 08:22	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-13
Client ID: LCH-5
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 10:30
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Anions by Ion Chromatography - Westborough Lab										
Chloride	1.86		mg/l	0.500	0.054	1	-	04/09/16 08:34	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-14
Client ID: DUP-1
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	0.471		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:35	44,350.1	AT
Chemical Oxygen Demand	20.		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:56	44,410.4	SD
BOD, 5 day	9.4		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	1.75		mg/l	0.500	0.054	1	-	04/09/16 08:46	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609862-15
Client ID: EQUIPMENT BLANK
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water

Date Collected: 04/05/16 13:55
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Ammonia	ND		mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:36	44,350.1	AT
Chemical Oxygen Demand	ND		mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:56	44,410.4	SD
BOD, 5 day	2.5		mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
Anions by Ion Chromatography - Westborough Lab										
Chloride	ND		mg/l	0.500	0.054	1	-	04/09/16 08:58	44,300.0	AU



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-07,14-15 Batch: WG880740-1									
BOD, 5 day	ND	mg/l	2.0	NA	1	04/06/16 03:40	04/10/16 21:40	121,5210B	TA
General Chemistry - Westborough Lab for sample(s): 01-07,14-15 Batch: WG881728-1									
Nitrogen, Ammonia	ND	mg/l	0.075	0.028	1	04/08/16 11:59	04/08/16 23:08	44,350.1	AT
General Chemistry - Westborough Lab for sample(s): 01-07,14-15 Batch: WG882254-1									
Chemical Oxygen Demand	ND	mg/l	20	3.5	1	04/11/16 10:20	04/11/16 13:47	44,410.4	SD
Anions by Ion Chromatography - Westborough Lab for sample(s): 01,03-04,06-15 Batch: WG882521-1									
Chloride	ND	mg/l	0.500	0.054	1	-	04/09/16 04:58	44,300.0	AU
Anions by Ion Chromatography - Westborough Lab for sample(s): 02,05 Batch: WG882582-1									
Chloride	ND	mg/l	0.500	0.054	1	-	04/11/16 17:29	44,300.0	AU

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 Batch: WG880740-2								
BOD, 5 day	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 Batch: WG881728-2								
Nitrogen, Ammonia	94		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 Batch: WG882254-2								
Chemical Oxygen Demand	103		-		95-105	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01,03-04,06-15 Batch: WG882521-2								
Chloride	95		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02,05 Batch: WG882582-2								
Chloride	98		-		90-110	-		

Matrix Spike Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG880740-4 QC Sample: L1609862-06 Client ID: CW-5B												
BOD, 5 day	ND	100	110	107	-	-	-	-	50-145	-	-	35
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG881728-4 QC Sample: L1609862-06 Client ID: CW-5B												
Nitrogen, Ammonia	0.066J	4	3.70	92	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG882254-3 QC Sample: L1609862-06 Client ID: CW-5B												
Chemical Oxygen Demand	ND	238	260	109	-	-	-	-	80-120	-	-	20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01,03-04,06-15 QC Batch ID: WG882521-3 WG882521-4 QC Sample: L1609862-06 Client ID: CW-5B												
Chloride	1.86	4	5.93	102	5.92	102	102	102	40-151	0	0	18
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02,05 QC Batch ID: WG882582-3 WG882582-4 QC Sample: L1609770-07 Client ID: MS Sample												
Chloride	1980	400	2340	90	2340	89	89	89	40-151	1	1	18

Lab Duplicate Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG880740-3 QC Sample: L1609862-06 Client ID: CW-5B						
BOD, 5 day	ND	ND	mg/l	NC		35
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG881728-3 QC Sample: L1609862-06 Client ID: CW-5B						
Nitrogen, Ammonia	0.066J	0.051J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG882254-4 QC Sample: L1609862-06 Client ID: CW-5B						
Chemical Oxygen Demand	ND	5.7J	mg/l	NC		20

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609862-01A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-01B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-02A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-02B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-03A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-03B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-04A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-04B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-05A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-05B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-06A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-06A1	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-06A2	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-06B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-06B1	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-06B2	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-07A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-07B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-08A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-09A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-10A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-11A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-12A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-13A	Plastic 60ml unpreserved	A	7	3.4	Y	Absent	CL-300(28)
L1609862-14A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-14B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)
L1609862-15A	Plastic 500ml H2SO4 preserved	A	<2	3.4	Y	Absent	COD-410(28),NH3-350(28)
L1609862-15B	Plastic 950ml unpreserved	A	7	3.4	Y	Absent	CL-300(28),BOD-5210(2)

*Values in parentheses indicate holding time in days



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

Data Qualifiers

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

Project Name: L&RR
Project Number: 224263

Lab Number: L1609862
Report Date: 04/12/16

REFERENCES

- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

CHAIN OF CUSTODY

PAGE 1 OF 2



Project Information

Project Name: L&RR

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Woodard & Curran

Address: 40 Shattuck Road Suite 40

Andover MA 01810

Phone: 866-702-6371

Fax: 978-557-7948

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609862

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.4														
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS																Sample Specific Comments	TOTAL # BOTTLES
		Date	Time			Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.4														
09862-01	MW-201	4-5-16	852	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2			
02	MW-202		747	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
03	MW-102A		1112	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
04	MW-103A		1527	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
05	MW-104A		1422	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
06	CW-5B		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
07	CW-7B		1242	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
08	SW-5		1445	SW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
09	SW-8		1150	SW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
10	SW-10		1318	SW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	P	P	P	P	-	-	-	-	-	-	-	-	-	-
Preservative	I	-	I	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms

FORM NO. 01-01(1)
(rev. 5-JAN-12)

CHAIN OF CUSTODY

PAGE 2 OF 2



Project Information

Project Name: L&RR

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Only

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Woodard & Curran

Address: 40 Shattuck Road Suite 40

Andover MA 01810

Phone: 866-702-6371

Fax: 978-557-7948

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609862

Report Information Data Deliverables

FAX EMAIL
 ADEX Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.0														
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS																TOTAL # BOTTLES													
		Date	Time			Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.0																										
09862-11	SW-16	4-5-16	1328	GW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
	LCH-3		1342	GW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	
	LC11-5		1030	GW	RM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	
	DUP-1		1112	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
	CW-5B MS		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
	CW-5B MSD		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
	EQUIPMENT BLANK		1355	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-010 (rev. 5-JAN-12)

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609862

Validation was performed on the inorganic analytical data collected by Woodard & Curran, Inc. at the L&RR Site in North Smithfield, Rhode Island. The data validation was conducted in accordance with "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" August 2014; "EPA New England Environmental Data Review Supplement For Regional Data Review Elements and Superfund Specific Guidance/Procedures" April 2013, the Quality Assurance Project Plan (QAPP); and the referenced methods.

SDG	ANALYSES
L1609862	Cl, NH3, COD, BOD

Cl=Chloride by EPA Method 300.0; NH3=Ammonia by EPA Method 350.1; COD=Chemical Oxygen Demand by EPA Method 410.4; BOD=Biological Oxygen Demand by SM 5210B

Field Sample ID	Accutest Laboratory ID
MW-201	L1609862-01
MW-202	L1609862-02
MW-102A	L1609862-03
MW-103A	L1609862-04
MW-104A	L1609862-05
CW-5B	L1609862-06
CW-7B	L1609862-07
SW-5	L1609862-08
SW-8	L1609862-09
SW-10	L1609862-10
SW-16	L1609862-11
LCH-3	L1609862-12
LCH-5	L1609862-13
DUP-1	L1609862-14
EQUIPMENT BLANK	L1609862-15

The data were evaluated and were based on the following parameters:

Inorganics

- Holding times
- Sample preservation
- Blank results
- Matrix spike and matrix spike duplicate results
- Laboratory duplicate results
- Field duplicates
- Laboratory control sample results

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609862

Inorganics

Holding Times

All Cl, NH₃, COD, and BOD samples were digested and/or analyzed within technical holding times. No qualifications were applied to the data.

Sample Preservation

Samples were received at 3.4 degrees Celsius. No qualifications were applied to the data.

Blank Results

All Cl, NH₃, COD, and BOD laboratory blanks were non-detect (ND). No qualifications were applied to the data.

Cl, NH₃, COD, and BOD field blank sample, EQUIPMENT BLANK (L1609862-15), was ND for all target analytes with the exception of BOD (2.5 mg/L). Since the samples were ND for BOD or the sample concentration was greater than the equipment blank concentration, no qualifications were applied to the data.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

The Cl, NH₃, COD, and BOD MS and/or MSD performed on sample CW-5B (L1609862-06) met acceptance criteria. No qualifications were applied to the data.

Laboratory Duplicate Results

The NH₃, COD, and BOD laboratory duplicate performed on sample CW-5B (L1609862-06) met acceptance criteria. No qualifications were applied to the data.

Field Duplicates

The Cl, NH₃, COD, and BOD field duplicate samples MW-102A (L1609862-03)/DUP-1 (L1609862-14) met acceptance criteria. No qualifications were applied to the data.

Laboratory Control Sample Results

All Cl, NH₃, COD, and BOD laboratory control samples (LCS) met acceptance criteria. No qualifications were applied to the data.

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609862

Miscellaneous

Cl in samples MW-202 (L1609862-02) and MW-104A (L1609862-5) were analyzed at a 10-fold dilution. The detection limits for Cl were raised in these samples due to the dilution performed because of the elevated concentration of target analytes and/or due to the sample matrix.

Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski:
President



Date:

5/3/2016



ANALYTICAL REPORT

Lab Number:	L1609965
Client:	Woodard & Curran 40 Shattuck Road Suite 110 Andover, MA 01810
ATTN:	Samantha Olney
Phone:	(978) 557-8150
Project Name:	L&RR
Project Number:	224263
Report Date:	04/12/16

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609965-01	MW-201	WATER	NORTH SMITHFIELD, RI	04/05/16 08:52	04/05/16
L1609965-02	MW-202	WATER	NORTH SMITHFIELD, RI	04/05/16 07:47	04/05/16
L1609965-03	MW-102A	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1609965-04	MW-103A	WATER	NORTH SMITHFIELD, RI	04/05/16 15:27	04/05/16
L1609965-05	MW-104A	WATER	NORTH SMITHFIELD, RI	04/05/16 14:22	04/05/16
L1609965-06	CW-5B	WATER	NORTH SMITHFIELD, RI	04/05/16 09:52	04/05/16
L1609965-07	CW-7B	WATER	NORTH SMITHFIELD, RI	04/05/16 12:42	04/05/16
L1609965-08	SW-5	WATER	NORTH SMITHFIELD, RI	04/05/16 14:45	04/05/16
L1609965-09	SW-8	WATER	NORTH SMITHFIELD, RI	04/05/16 11:50	04/05/16
L1609965-10	SW-10	WATER	NORTH SMITHFIELD, RI	04/05/16 13:18	04/05/16
L1609965-11	SW-16	WATER	NORTH SMITHFIELD, RI	04/05/16 13:28	04/05/16
L1609965-12	LCH-3	WATER	NORTH SMITHFIELD, RI	04/05/16 13:42	04/05/16
L1609965-13	LCH-5	WATER	NORTH SMITHFIELD, RI	04/05/16 10:30	04/05/16
L1609965-14	DUP-1	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1609965-15	EQUIPMENT BLANK	WATER	NORTH SMITHFIELD, RI	04/05/16 13:55	04/05/16
L1609965-16	TRIP BLANK	WATER	NORTH SMITHFIELD, RI	04/05/16 00:00	04/05/16

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Case Narrative

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

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

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

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

HOLD POLICY

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

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

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Case Narrative (continued)

Report Submission

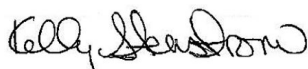
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

Containers for the analysis of 504.1 were not received for the "TRIP BLANK".

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/12/16

ORGANICS

VOLATILES

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-01
 Client ID: MW-201
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 12:58
 Analyst: PD

Date Collected: 04/05/16 08:52
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-01
Client ID: MW-201
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 08:52
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	2.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-01
 Client ID: MW-201
 Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 08:52
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-01
 Client ID: MW-201
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 17:44
 Analyst: NS

Date Collected: 04/05/16 08:52
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.020	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.020	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-02
Client ID: MW-202
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 13:26
Analyst: PD

Date Collected: 04/05/16 07:47
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-02
Client ID: MW-202
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 07:47
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	1.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-02
Client ID: MW-202
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 07:47
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	94		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-02
 Client ID: MW-202
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 18:06
 Analyst: NS

Date Collected: 04/05/16 07:47
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.020	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.020	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-03
Client ID: MW-102A
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 13:55
Analyst: PD

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	9.8		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	1.1		ug/l	0.50	0.18	1
Chlorobenzene	2.6		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	1.0		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	5.2		ug/l	0.20	0.07	1
Chloroethane	1.0		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	0.50	J	ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	39	J	ug/l	0.50	0.16	1
Trichloroethene	2.1		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-03
Client ID: MW-102A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	1.6		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	38		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	1.6	J	ug/l	2.0	0.24	1
Acetone	3.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	1.3	J	ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-03
Client ID: MW-102A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	2.5		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	95		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-03
 Client ID: MW-102A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 18:29
 Analyst: NS

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.020	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.020	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-04
Client ID: MW-103A
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 14:23
Analyst: PD

Date Collected: 04/05/16 15:27
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-04
Client ID: MW-103A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 15:27
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	2.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-04
Client ID: MW-103A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 15:27
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-04
 Client ID: MW-103A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 18:52
 Analyst: NS

Date Collected: 04/05/16 15:27
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-05
 Client ID: MW-104A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 14:51
 Analyst: PD

Date Collected: 04/05/16 14:22
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	0.65		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	0.60		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-05
Client ID: MW-104A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 14:22
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	0.18	J	ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	1.7		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	3.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	4.3		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	0.26	J	ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	5.4		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-05
Client ID: MW-104A
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 14:22
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	0.71	J	ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	69		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	64	J	ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	94		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-05
 Client ID: MW-104A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 19:14
 Analyst: NS

Date Collected: 04/05/16 14:22
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-06
 Client ID: CW-5B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 15:19
 Analyst: PD

Date Collected: 04/05/16 09:52
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	1.9		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-06
Client ID: CW-5B
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 09:52
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	2.6		ug/l	2.0	0.24	1
Acetone	2.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	0.24	J	ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-06
Client ID: CW-5B
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 09:52
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	8.8	J	ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-06
 Client ID: CW-5B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 19:36
 Analyst: NS

Date Collected: 04/05/16 09:52
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-07
 Client ID: CW-7B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 15:47
 Analyst: PD

Date Collected: 04/05/16 12:42
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-07
Client ID: CW-7B
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 12:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	2.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	1.6	J	ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-07
Client ID: CW-7B
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 12:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	5.9	J	ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-07
 Client ID: CW-7B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 20:21
 Analyst: NS

Date Collected: 04/05/16 12:42
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-08
 Client ID: SW-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 16:15
 Analyst: PD

Date Collected: 04/05/16 14:45
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-08
Client ID: SW-5
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 14:45
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	1.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-08
Client ID: SW-5
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 14:45
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-09
Client ID: SW-8
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 16:43
Analyst: PD

Date Collected: 04/05/16 11:50
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	0.22	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-09
Client ID: SW-8
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:50
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	0.66	J	ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	4.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	1.1	J	ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	0.33	J	ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-09
Client ID: SW-8
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:50
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	0.54	J	ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	11		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-10
Client ID: SW-10
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 17:11
Analyst: PD

Date Collected: 04/05/16 13:18
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	0.28	J	ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	0.45	J	ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-10
Client ID: SW-10
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:18
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	0.43	J	ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	5.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	1.6	J	ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-10
Client ID: SW-10
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:18
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	1.2		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	13		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-11
Client ID: SW-16
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 17:39
Analyst: PD

Date Collected: 04/05/16 13:28
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-11
Client ID: SW-16
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:28
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-11
Client ID: SW-16
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:28
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	1.6	J	ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	94		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-12
 Client ID: LCH-3
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 18:07
 Analyst: PD

Date Collected: 04/05/16 13:42
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-12
Client ID: LCH-3
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	2.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-12
Client ID: LCH-3
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:42
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	94		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-13
 Client ID: LCH-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/08/16 18:35
 Analyst: PD

Date Collected: 04/05/16 10:30
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-13
Client ID: LCH-5
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 10:30
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-13
Client ID: LCH-5
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 10:30
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	3.6	J	ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-14
Client ID: DUP-1
Sample Location: NORTH SMITHFIELD, RI
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/16 19:03
Analyst: PD

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	10		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	1.2		ug/l	0.50	0.18	1
Chlorobenzene	2.7		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	1.0		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	5.3		ug/l	0.20	0.07	1
Chloroethane	1.1		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	0.49	J	ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	39	J	ug/l	0.50	0.16	1
Trichloroethene	2.1		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-14
Client ID: DUP-1
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	1.6		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	39		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	1.8	J	ug/l	2.0	0.24	1
Acetone	1.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	1.3	J	ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-14
Client ID: DUP-1
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 11:12
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	2.6		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	96		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-14
 Client ID: DUP-1
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 20:43
 Analyst: NS

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-15
 Client ID: EQUIPMENT BLANK
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/07/16 23:36
 Analyst: PK

Date Collected: 04/05/16 13:55
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-15
Client ID: EQUIPMENT BLANK
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:55
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	3.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-15
 Client ID: EQUIPMENT BLANK
 Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 13:55
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-15
 Client ID: EQUIPMENT BLANK
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 14,504.1
 Analytical Date: 04/07/16 21:06
 Analyst: NS

Date Collected: 04/05/16 13:55
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 8011
 Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.021	0.003	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.021	0.007	1	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-16
 Client ID: TRIP BLANK
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/07/16 23:08
 Analyst: PK

Date Collected: 04/05/16 00:00
 Date Received: 04/05/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	1.0	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	1.0	0.17	1
Bromoform	ND		ug/l	1.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.0	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	0.20	0.07	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-16
Client ID: TRIP BLANK
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 00:00
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18	1
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19	1
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19	1
Methyl tert butyl ether	ND		ug/l	1.0	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	1.0	0.36	1
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18	1
Dichlorodifluoromethane	ND		ug/l	2.0	0.24	1
Acetone	2.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	1.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	1.0	0.14	1
Tetrahydrofuran	ND		ug/l	2.0	0.52	1
2,2-Dichloropropane	ND		ug/l	1.0	0.20	1
1,2-Dibromoethane	ND		ug/l	1.0	0.19	1
1,3-Dichloropropane	ND		ug/l	1.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	1.0	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	1.0	0.18	1
o-Chlorotoluene	ND		ug/l	1.0	0.17	1
p-Chlorotoluene	ND		ug/l	1.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	1.0	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17	1
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13	1

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-16
Client ID: TRIP BLANK
Sample Location: NORTH SMITHFIELD, RI

Date Collected: 04/05/16 00:00
Date Received: 04/05/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	1.0	0.15	1
Diisopropyl Ether	ND		ug/l	1.0	0.42	1
Tert-Butyl Alcohol	ND		ug/l	10	0.90	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	10	0.15	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 04/07/16 16:15
Analyst: NS

Extraction Method: EPA 8011
Extraction Date: 04/07/16 14:16

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01-07,14-15 Batch: WG881277-1						
1,2-Dibromoethane	ND		ug/l	0.020	0.003	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.020	0.007	A

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/07/16 22:40
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15-16 Batch: WG881828-3					
Methylene chloride	ND		ug/l	3.0	0.29
1,1-Dichloroethane	ND		ug/l	0.75	0.21
Chloroform	ND		ug/l	0.75	0.16
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
Trichlorofluoromethane	ND		ug/l	1.0	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	1.0	0.17
Bromoform	ND		ug/l	1.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	0.75	0.16
Ethylbenzene	ND		ug/l	0.50	0.17
Chloromethane	ND		ug/l	2.0	0.18
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	0.20	0.07
Chloroethane	ND		ug/l	1.0	0.13
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/07/16 22:40
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15-16 Batch: WG881828-3					
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19
Methyl tert butyl ether	ND		ug/l	1.0	0.16
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.33
Xylenes, Total	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	1.0	0.36
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18
Dichlorodifluoromethane	ND		ug/l	2.0	0.24
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	1.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.52
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	1.0	0.14
Tetrahydrofuran	ND		ug/l	2.0	0.52
2,2-Dichloropropane	ND		ug/l	1.0	0.20
1,2-Dibromoethane	ND		ug/l	1.0	0.19
1,3-Dichloropropane	ND		ug/l	1.0	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	1.0	0.15
n-Butylbenzene	ND		ug/l	0.50	0.19
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	1.0	0.18
o-Chlorotoluene	ND		ug/l	1.0	0.17

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/07/16 22:40
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 15-16 Batch: WG881828-3					
p-Chlorotoluene	ND		ug/l	1.0	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33
Hexachlorobutadiene	0.23	J	ug/l	0.50	0.22
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	1.0	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17
Ethyl ether	ND		ug/l	1.0	0.15
Diisopropyl Ether	ND		ug/l	1.0	0.42
Tert-Butyl Alcohol	ND		ug/l	10	0.90
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28
1,4-Dioxane	ND		ug/l	250	41.
Freon-113	ND		ug/l	10	0.15

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	93		70-130

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/16 11:33
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-14 Batch: WG882145-3					
Methylene chloride	ND		ug/l	3.0	0.29
1,1-Dichloroethane	ND		ug/l	0.75	0.21
Chloroform	ND		ug/l	0.75	0.16
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
Trichlorofluoromethane	ND		ug/l	1.0	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	1.0	0.17
Bromoform	ND		ug/l	1.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	0.75	0.16
Ethylbenzene	ND		ug/l	0.50	0.17
Chloromethane	ND		ug/l	2.0	0.18
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	0.20	0.07
Chloroethane	ND		ug/l	1.0	0.13
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/16 11:33
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-14 Batch: WG882145-3					
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	1.0	0.18
1,3-Dichlorobenzene	ND		ug/l	1.0	0.19
1,4-Dichlorobenzene	ND		ug/l	1.0	0.19
Methyl tert butyl ether	ND		ug/l	1.0	0.16
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.33
Xylenes, Total	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	1.0	0.36
1,2,3-Trichloropropane	ND		ug/l	1.0	0.18
Dichlorodifluoromethane	ND		ug/l	2.0	0.24
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	1.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.52
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	1.0	0.14
Tetrahydrofuran	ND		ug/l	2.0	0.52
2,2-Dichloropropane	ND		ug/l	1.0	0.20
1,2-Dibromoethane	ND		ug/l	1.0	0.19
1,3-Dichloropropane	ND		ug/l	1.0	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	1.0	0.15
n-Butylbenzene	ND		ug/l	0.50	0.19
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	1.0	0.18
o-Chlorotoluene	ND		ug/l	1.0	0.17

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/16 11:33
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-14 Batch: WG882145-3					
p-Chlorotoluene	ND		ug/l	1.0	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	1.0	0.33
Hexachlorobutadiene	ND		ug/l	0.50	0.22
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	1.0	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	1.0	0.23
1,2,4-Trichlorobenzene	ND		ug/l	1.0	0.22
1,3,5-Trimethylbenzene	ND		ug/l	1.0	0.17
1,3,5-Trichlorobenzene	ND		ug/l	1.0	0.13
1,2,4-Trimethylbenzene	ND		ug/l	1.0	0.19
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17
Ethyl ether	ND		ug/l	1.0	0.15
Diisopropyl Ether	ND		ug/l	1.0	0.42
Tert-Butyl Alcohol	ND		ug/l	10	0.90
Ethyl-Tert-Butyl-Ether	ND		ug/l	1.0	0.18
Tertiary-Amyl Methyl Ether	ND		ug/l	1.0	0.28
1,4-Dioxane	ND		ug/l	250	41.
Freon-113	ND		ug/l	10	0.15

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01-07,14-15 Batch: WG881277-2									
1,2-Dibromoethane	103		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	104		-		70-130	-		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15-16 Batch: WG881828-1 WG881828-2								
Methylene chloride	96		96		70-130	0		20
1,1-Dichloroethane	121		119		70-130	2		20
Chloroform	103		102		70-130	1		20
Carbon tetrachloride	102		99		63-132	3		20
1,2-Dichloropropane	114		113		70-130	1		20
Dibromochloromethane	93		94		63-130	1		20
1,1,2-Trichloroethane	102		102		70-130	0		20
2-Chloroethylvinyl ether	83		90		70-130	8		20
Tetrachloroethene	87		84		70-130	4		20
Chlorobenzene	97		96		75-130	1		25
Trichlorofluoromethane	102		98		62-150	4		20
1,2-Dichloroethane	111		113		70-130	2		20
1,1,1-Trichloroethane	104		100		67-130	4		20
Bromodichloromethane	99		99		67-130	0		20
trans-1,3-Dichloropropene	104		106		70-130	2		20
cis-1,3-Dichloropropene	102		101		70-130	1		20
1,1-Dichloropropene	110		107		70-130	3		20
Bromoform	95		100		54-136	5		20
1,1,2,2-Tetrachloroethane	108		111		67-130	3		20
Benzene	103		102		70-130	1		25
Toluene	99		97		70-130	2		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15-16 Batch: WG881828-1 WG881828-2								
Ethylbenzene	106		104		70-130	2		20
Chloromethane	108		105		64-130	3		20
Bromomethane	60		60		39-139	0		20
Vinyl chloride	106		104		55-140	2		20
Chloroethane	114		111		55-138	3		20
1,1-Dichloroethene	96		92		61-145	4		25
trans-1,2-Dichloroethene	96		93		70-130	3		20
Trichloroethene	97		96		70-130	1		25
1,2-Dichlorobenzene	96		97		70-130	1		20
1,3-Dichlorobenzene	97		97		70-130	0		20
1,4-Dichlorobenzene	97		97		70-130	0		20
Methyl tert butyl ether	102		105		63-130	3		20
p/m-Xylene	102		100		70-130	2		20
o-Xylene	101		99		70-130	2		20
cis-1,2-Dichloroethene	94		93		70-130	1		20
Dibromomethane	94		96		70-130	2		20
1,4-Dichlorobutane	138	Q	141	Q	70-130	2		20
1,2,3-Trichloropropane	120		124		64-130	3		20
Styrene	97		97		70-130	0		20
Dichlorodifluoromethane	100		95		36-147	5		20
Acetone	113		123		58-148	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15-16 Batch: WG881828-1 WG881828-2								
Carbon disulfide	98		95		51-130	3		20
2-Butanone	121		126		63-138	4		20
Vinyl acetate	136	Q	138	Q	70-130	1		20
4-Methyl-2-pentanone	105		106		59-130	1		20
2-Hexanone	125		126		57-130	1		20
Ethyl methacrylate	98		100		70-130	2		20
Acrolein	113		112		70-130	1		20
Acrylonitrile	123		129		70-130	5		20
Bromochloromethane	91		90		70-130	1		20
Tetrahydrofuran	128		131	Q	58-130	2		20
2,2-Dichloropropane	136	Q	132		63-133	3		20
1,2-Dibromoethane	93		95		70-130	2		20
1,3-Dichloropropane	107		110		70-130	3		20
1,1,1,2-Tetrachloroethane	94		95		64-130	1		20
Bromobenzene	94		95		70-130	1		20
n-Butylbenzene	116		114		53-136	2		20
sec-Butylbenzene	111		108		70-130	3		20
tert-Butylbenzene	107		104		70-130	3		20
o-Chlorotoluene	120		119		70-130	1		20
p-Chlorotoluene	116		115		70-130	1		20
1,2-Dibromo-3-chloropropane	124		126		41-144	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15-16 Batch: WG881828-1 WG881828-2								
Hexachlorobutadiene	95		94		63-130	1		20
Isopropylbenzene	112		110		70-130	2		20
p-Isopropyltoluene	107		105		70-130	2		20
Naphthalene	104		103		70-130	1		20
n-Propylbenzene	117		114		69-130	3		20
1,2,3-Trichlorobenzene	94		94		70-130	0		20
1,2,4-Trichlorobenzene	93		92		70-130	1		20
1,3,5-Trimethylbenzene	112		110		64-130	2		20
1,3,5-Trichlorobenzene	95		95		70-130	0		20
1,2,4-Trimethylbenzene	111		110		70-130	1		20
trans-1,4-Dichloro-2-butene	112		116		70-130	4		20
Halothane	91		89		70-130	2		20
Ethyl ether	99		101		59-134	2		20
Tert-Butyl Alcohol	141	Q	143	Q	70-130	1		20
p-Diethylbenzene	107		104		70-130	3		20
4-Ethyltoluene	114		114		70-130	0		20
1,2,4,5-Tetramethylbenzene	108		108		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 15-16 Batch: WG881828-1 WG881828-2

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4	119		114		70-130
Toluene-d8	105		106		70-130
4-Bromofluorobenzene	116		117		70-130
Dibromofluoromethane	97		96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 Batch: WG882145-1 WG882145-2								
Methylene chloride	101		101		70-130	0		20
1,1-Dichloroethane	125		125		70-130	0		20
Chloroform	106		105		70-130	1		20
Carbon tetrachloride	103		101		63-132	2		20
1,2-Dichloropropane	118		117		70-130	1		20
Dibromochloromethane	98		99		63-130	1		20
1,1,2-Trichloroethane	106		109		70-130	3		20
2-Chloroethylvinyl ether	95		97		70-130	2		20
Tetrachloroethene	86		86		70-130	0		20
Chlorobenzene	99		100		75-130	1		25
Trichlorofluoromethane	101		100		62-150	1		20
1,2-Dichloroethane	118		117		70-130	1		20
1,1,1-Trichloroethane	105		105		67-130	0		20
Bromodichloromethane	104		103		67-130	1		20
trans-1,3-Dichloropropene	110		111		70-130	1		20
cis-1,3-Dichloropropene	105		106		70-130	1		20
1,1-Dichloropropene	112		110		70-130	2		20
Bromoform	102		104		54-136	2		20
1,1,2,2-Tetrachloroethane	115		117		67-130	2		20
Benzene	106		106		70-130	0		25
Toluene	102		101		70-130	1		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 Batch: WG882145-1 WG882145-2								
Ethylbenzene	109		108		70-130	1		20
Chloromethane	112		110		64-130	2		20
Bromomethane	64		63		39-139	2		20
Vinyl chloride	109		108		55-140	1		20
Chloroethane	116		115		55-138	1		20
1,1-Dichloroethene	97		96		61-145	1		25
trans-1,2-Dichloroethene	98		97		70-130	1		20
Trichloroethene	101		100		70-130	1		25
1,2-Dichlorobenzene	100		102		70-130	2		20
1,3-Dichlorobenzene	100		101		70-130	1		20
1,4-Dichlorobenzene	101		100		70-130	1		20
Methyl tert butyl ether	108		109		63-130	1		20
p/m-Xylene	104		104		70-130	0		20
o-Xylene	103		103		70-130	0		20
cis-1,2-Dichloroethene	98		97		70-130	1		20
Dibromomethane	101		101		70-130	0		20
1,4-Dichlorobutane	147	Q	149	Q	70-130	1		20
1,2,3-Trichloropropane	126		129		64-130	2		20
Styrene	101		101		70-130	0		20
Dichlorodifluoromethane	100		98		36-147	2		20
Acetone	129		128		58-148	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 Batch: WG882145-1 WG882145-2								
Carbon disulfide	101		99		51-130	2		20
2-Butanone	120		125		63-138	4		20
Vinyl acetate	142	Q	146	Q	70-130	3		20
4-Methyl-2-pentanone	110		112		59-130	2		20
2-Hexanone	129		134	Q	57-130	4		20
Ethyl methacrylate	101		103		70-130	2		20
Acrolein	115		115		70-130	0		20
Acrylonitrile	133	Q	136	Q	70-130	2		20
Bromochloromethane	94		94		70-130	0		20
Tetrahydrofuran	141	Q	143	Q	58-130	1		20
2,2-Dichloropropane	140	Q	138	Q	63-133	1		20
1,2-Dibromoethane	97		99		70-130	2		20
1,3-Dichloropropane	113		114		70-130	1		20
1,1,1,2-Tetrachloroethane	99		98		64-130	1		20
Bromobenzene	98		98		70-130	0		20
n-Butylbenzene	119		119		53-136	0		20
sec-Butylbenzene	113		113		70-130	0		20
tert-Butylbenzene	109		108		70-130	1		20
o-Chlorotoluene	123		124		70-130	1		20
p-Chlorotoluene	120		120		70-130	0		20
1,2-Dibromo-3-chloropropane	131		135		41-144	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 Batch: WG882145-1 WG882145-2								
Hexachlorobutadiene	98		98		63-130	0		20
Isopropylbenzene	114		114		70-130	0		20
p-Isopropyltoluene	109		109		70-130	0		20
Naphthalene	104		108		70-130	4		20
n-Propylbenzene	119		120		69-130	1		20
1,2,3-Trichlorobenzene	95		99		70-130	4		20
1,2,4-Trichlorobenzene	95		97		70-130	2		20
1,3,5-Trimethylbenzene	114		114		64-130	0		20
1,3,5-Trichlorobenzene	98		98		70-130	0		20
1,2,4-Trimethylbenzene	114		114		70-130	0		20
trans-1,4-Dichloro-2-butene	120		120		70-130	0		20
Halothane	94		92		70-130	2		20
Ethyl ether	103		104		59-134	1		20
Tert-Butyl Alcohol	146	Q	148	Q	70-130	1		20
p-Diethylbenzene	109		109		70-130	0		20
4-Ethyltoluene	118		117		70-130	1		20
1,2,4,5-Tetramethylbenzene	111		112		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 Batch: WG882145-1 WG882145-2

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4	117		117		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	117		118		70-130
Dibromofluoromethane	97		96		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-07,14-15 QC Batch ID: WG881277-3 WG881277-4 QC Sample: L1609965-06 Client ID: CW-5B													
1,2-Dibromoethane	ND	0.259	0.266	103		0.299	114		70-130	12		20	A
1,2-Dibromo-3-chloropropane	ND	0.259	0.269	104		0.273	104		70-130	1		20	A

Matrix Spike Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG882145-4 WG882145-5 QC Sample: L1609965-06 Client ID: CW-5B												
Methylene chloride	ND	10	10	104		11	110		70-130	10		20
1,1-Dichloroethane	ND	10	13	134	Q	14	141	Q	70-130	7		20
Chloroform	ND	10	11	111		12	117		70-130	9		20
Carbon tetrachloride	ND	10	10	103		11	110		63-132	10		20
1,2-Dichloropropane	ND	10	12	122		13	128		70-130	8		20
Dibromochloromethane	ND	10	9.6	96		10	101		63-130	4		20
1,1,2-Trichloroethane	ND	10	11	109		11	114		70-130	0		20
2-Chloroethylvinyl ether	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Tetrachloroethene	1.9	10	10	83		11	87		70-130	10		20
Chlorobenzene	ND	10	10	100		10	105		75-130	0		25
Trichlorofluoromethane	ND	10	11	107		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	12	122		13	127		70-130	8		20
1,1,1-Trichloroethane	ND	10	11	108		11	114		67-130	0		20
Bromodichloromethane	ND	10	11	106		11	112		67-130	0		20
trans-1,3-Dichloropropene	ND	10	11	107		11	113		70-130	0		20
cis-1,3-Dichloropropene	ND	10	10	103		11	108		70-130	10		20
1,1-Dichloropropene	ND	10	11	113		12	119		70-130	9		20
Bromoform	ND	10	9.7	97		10	105		54-136	3		20
1,1,2,2-Tetrachloroethane	ND	10	12	117		12	123		67-130	0		20
Benzene	ND	10	11	110		12	116		70-130	9		25
Toluene	ND	10	10	102		11	108		70-130	10		25

Matrix Spike Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG882145-4 WG882145-5 QC Sample: L1609965-06 Client ID: CW-5B												
Ethylbenzene	ND	10	11	108		11	113		70-130	0		20
Chloromethane	ND	10	12	122		13	128		64-130	8		20
Bromomethane	ND	10	5.4	55		6.5	65		39-139	18		20
Vinyl chloride	ND	10	12	118		12	124		55-140	0		20
Chloroethane	ND	10	13	128		13	133		55-138	0		20
1,1-Dichloroethene	ND	10	10	102		11	106		61-145	10		25
trans-1,2-Dichloroethene	ND	10	10	101		11	107		70-130	10		20
Trichloroethene	ND	10	10	102		11	108		70-130	10		25
1,2-Dichlorobenzene	ND	10	9.9	99		10	105		70-130	1		20
1,3-Dichlorobenzene	ND	10	9.7	98		10	105		70-130	3		20
1,4-Dichlorobenzene	ND	10	9.8	98		10	104		70-130	2		20
Methyl tert butyl ether	ND	10	11	110		11	115		63-130	0		20
p/m-Xylene	ND	20	20	102		22	108		70-130	10		20
o-Xylene	ND	20	20	103		22	109		70-130	10		20
cis-1,2-Dichloroethene	ND	10	10	102		11	106		70-130	10		20
Dibromomethane	ND	10	10	100		10	105		70-130	0		20
1,4-Dichlorobutane	ND	10	15	149	Q	16	157	Q	70-130	6		20
1,2,3-Trichloropropane	ND	10	13	128		13	133	Q	64-130	0		20
Styrene	ND	20	20	99		21	105		70-130	5		20
Dichlorodifluoromethane	2.6	10	12	99		12	99		36-147	0		20
Acetone	2.6J	10	19	188	Q	19	187	Q	58-148	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG882145-4 WG882145-5 QC Sample: L1609965-06 Client ID: CW-5B												
Carbon disulfide	ND	10	10	103		11	108		51-130	10		20
2-Butanone	ND	10	14	140	Q	13	131		63-138	7		20
Vinyl acetate	ND	10	15	147	Q	15	154	Q	70-130	0		20
4-Methyl-2-pentanone	ND	10	11	110		12	115		59-130	9		20
2-Hexanone	ND	10	13	129		14	140	Q	57-130	7		20
Ethyl methacrylate	ND	10	10	104		11	109		70-130	10		20
Acrolein	ND	10	11	110		12	118		70-130	9		20
Acrylonitrile	ND	10	13	134	Q	14	143	Q	70-130	7		20
Bromochloromethane	ND	10	9.6	96		10	101		70-130	4		20
Tetrahydrofuran	ND	10	14	138	Q	15	149	Q	58-130	7		20
2,2-Dichloropropane	ND	10	13	132		14	137	Q	63-133	7		20
1,2-Dibromoethane	ND	10	9.7	97		10	101		70-130	3		20
1,3-Dichloropropane	ND	10	11	115		12	120		70-130	9		20
1,1,1,2-Tetrachloroethane	ND	10	9.7	97		10	103		64-130	3		20
Bromobenzene	ND	10	9.6	96		10	102		70-130	4		20
n-Butylbenzene	ND	10	11	115		12	123		53-136	9		20
sec-Butylbenzene	ND	10	11	111		12	117		70-130	9		20
tert-Butylbenzene	ND	10	11	106		11	113		70-130	0		20
o-Chlorotoluene	ND	10	12	123		13	130		70-130	8		20
p-Chlorotoluene	ND	10	12	117		12	125		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	10	102		14	136		41-144	33	Q	20

Matrix Spike Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG882145-4 WG882145-5 QC Sample: L1609965-06 Client ID: CW-5B												
Hexachlorobutadiene	ND	10	7.9	79		9.2	92		63-130	15		20
Isopropylbenzene	ND	10	11	113		12	119		70-130	9		20
p-Isopropyltoluene	ND	10	11	106		11	112		70-130	0		20
Naphthalene	0.24J	10	9.7	97		11	108		70-130	13		20
n-Propylbenzene	ND	10	12	117		12	124		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	8.8	88		9.7	97		70-130	10		20
1,2,4-Trichlorobenzene	ND	10	8.8	88		9.8	98		70-130	11		20
1,3,5-Trimethylbenzene	ND	10	11	113		12	120		64-130	9		20
1,3,5-Trichlorobenzene	ND	10	9.1	91		10	100		70-130	9		20
1,2,4-Trimethylbenzene	ND	10	11	113		12	119		70-130	9		20
trans-1,4-Dichloro-2-butene	ND	10	12	115		12	120		70-130	0		20
Halothane	ND	10	9.6	96		10	102		70-130	4		30
Ethyl ether	ND	10	11	106		11	113		59-134	0		20
Tert-Butyl Alcohol	8.8J	50	62	124		73	146	Q	70-130	16		20
p-Diethylbenzene	ND	10	10	105		11	112		70-130	10		20
4-Ethyltoluene	ND	10	12	115		12	122		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10	11	107		12	115		70-130	9		20

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
1,2-Dichloroethane-d4	119		117		70-130



Matrix Spike Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG882145-4 WG882145-5 QC Sample: L1609965-06 Client ID: CW-5B

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>	
4-Bromofluorobenzene	117		119		70-130
Dibromofluoromethane	98		97		70-130
Toluene-d8	105		105		70-130

SEMIVOLATILES

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-01
 Client ID: MW-201
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/08/16 22:34
 Analyst: SF

Date Collected: 04/05/16 08:52
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ug/l	0.144	0.0721	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-02
 Client ID: MW-202
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/08/16 23:20
 Analyst: SF

Date Collected: 04/05/16 07:47
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ug/l	0.142	0.0708	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	16		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-03
 Client ID: MW-102A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/11/16 20:35
 Analyst: SF

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/11/16 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	0.375		ug/l	0.150	0.0750	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	29		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-04
 Client ID: MW-103A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 00:06
 Analyst: SF

Date Collected: 04/05/16 15:27
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab

1,4-Dioxane	1.96		ug/l	0.142	0.0708	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	16		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-05
 Client ID: MW-104A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 00:51
 Analyst: SF

Date Collected: 04/05/16 14:22
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	102.		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-06
 Client ID: CW-5B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/12/16 13:08
 Analyst: SF

Date Collected: 04/05/16 09:52
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/11/16 16:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ug/l	0.144	0.0721	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-07
 Client ID: CW-7B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/12/16 15:27
 Analyst: SF

Date Collected: 04/05/16 12:42
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/11/16 16:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	4.23		ug/l	0.144	0.0721	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-08
 Client ID: SW-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 06:07
 Analyst: SF

Date Collected: 04/05/16 14:45
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	0.159		ug/l	0.153	0.0765	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-09
 Client ID: SW-8
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 06:52
 Analyst: SF

Date Collected: 04/05/16 11:50
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	7.13		ug/l	0.150	0.0750	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-10
 Client ID: SW-10
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 07:38
 Analyst: SF

Date Collected: 04/05/16 13:18
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	19.6		ug/l	0.150	0.0750	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-11
 Client ID: SW-16
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 08:24
 Analyst: SF

Date Collected: 04/05/16 13:28
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	6.17		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-12
 Client ID: LCH-3
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 09:09
 Analyst: SF

Date Collected: 04/05/16 13:42
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ug/l	0.170	0.0852	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-13
 Client ID: LCH-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 09:55
 Analyst: SF

Date Collected: 04/05/16 10:30
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	2.22		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-14
 Client ID: DUP-1
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/11/16 21:18
 Analyst: SF

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/11/16 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.386		ug/l	0.142	0.0708	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	30		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1609965-15
 Client ID: EQUIPMENT BLANK
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 04/09/16 10:41
 Analyst: SF

Date Collected: 04/05/16 13:55
 Date Received: 04/05/16
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ug/l	0.156	0.0781	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/08/16 17:57
Analyst: SF

Extraction Method: EPA 3510C
Extraction Date: 04/08/16 09:06

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-02,04-05,08-13,15 1					Batch: WG881638-
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/11/16 18:25
Analyst: SF

Extraction Method: EPA 3510C
Extraction Date: 04/11/16 10:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 03,14 Batch: WG882232-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	33		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/12/16 10:50
Analyst: SF

Extraction Method: EPA 3510C
Extraction Date: 04/11/16 13:15

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 06-07 Batch: WG882381-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-02,04-05,08-13,15 Batch: WG881638-2 WG881638-3								
1,4-Dioxane	120		122		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	23		21		15-110

Lab Control Sample Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 03,14 Batch: WG882232-2 WG882232-3								
1,4-Dioxane	115		115		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	33		33		15-110

Lab Control Sample Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 06-07 Batch: WG882381-2 WG882381-3								
1,4-Dioxane	118		117		40-140	1		30

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,4-Dioxane-d8	26		28		15-110

Matrix Spike Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 06-07 QC Batch ID: WG882381-4 WG882381-5 QC Sample: L1609965-06 Client ID: CW-5B												
1,4-Dioxane	ND	4.81	5.70	119		5.61	119		40-140	2		30

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
1,4-Dioxane-d8	23		22		15-110

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler

A Absent
 B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609965-01A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-01B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-01C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-01D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-01E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-01F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-01G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-02A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-02B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-02C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-02D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-02E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-02F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-02G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-03A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-03A1	Vial HCl preserved	B	N/A	3.6	Y	Absent	HOLD-8260(14)
L1609965-03B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-03B1	Vial HCl preserved	B	N/A	3.6	Y	Absent	HOLD-8260(14)
L1609965-03C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-03C1	Vial HCl preserved	B	N/A	3.6	Y	Absent	HOLD-8260(14)
L1609965-03D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-03E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-03F	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-03G	Amber 1000ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-04A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-04B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-04C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-04D	Vial Na2S2O3 preserved	A	N/A	4.0	Y	Absent	504(14)

*Values in parentheses indicate holding time in days



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609965-04E	Vial Na2S2O3 preserved	A	N/A	4.0	Y	Absent	504(14)
L1609965-04F	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-04G	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-05A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-05B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-05C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-05D	Vial Na2S2O3 preserved	A	N/A	4.0	Y	Absent	504(14)
L1609965-05E	Vial Na2S2O3 preserved	A	N/A	4.0	Y	Absent	504(14)
L1609965-05F	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-05G	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06A1	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06A2	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06B1	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06B2	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06C1	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06C2	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-06D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06D1	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06D2	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06E1	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06E2	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-06F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06F1	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06F2	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06G1	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-06G2	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-07A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-07B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-07C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-07D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-07E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)

*Values in parentheses indicate holding time in days



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609965-07F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-07G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-08A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-08B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-08C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-08D	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-08E	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-09A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-09B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-09C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-09D	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-09E	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-10A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-10B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-10C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-10D	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-10E	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-11A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-11B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-11C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-11D	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-11E	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-12A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-12B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-12C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-12D	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-12E	Amber 500ml unpreserved	A	7	4.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-13A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-13B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-13C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-13D	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-13E	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-14A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-14B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-14C	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-14D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)

*Values in parentheses indicate holding time in days



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609965-14E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-14F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-14G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-14H	Vial HCl preserved	B	N/A	3.6	Y	Absent	-
L1609965-14I	Vial HCl preserved	B	N/A	3.6	Y	Absent	-
L1609965-14J	Vial HCl preserved	B	N/A	3.6	Y	Absent	-
L1609965-15A	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-15B	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-15C	Vial HCl preserved	A	N/A	4.0	Y	Absent	ME-8260(14)
L1609965-15D	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-15E	Vial Na2S2O3 preserved	B	N/A	3.6	Y	Absent	504(14)
L1609965-15F	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-15G	Amber 500ml unpreserved	B	7	3.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1609965-16A	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)
L1609965-16B	Vial HCl preserved	B	N/A	3.6	Y	Absent	ME-8260(14)

*Values in parentheses indicate holding time in days

Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Project Name: L&RR
Project Number: 224263

Lab Number: L1609965
Report Date: 04/12/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

CHAIN OF CUSTODY

PAGE 1 OF 2



Project Information

Project Name: L&RR
 Project Location: North Smithfield RI
 Project #: 224263
 Project Manager: Samantha Olney
 ALPHA Quote #:
 Turn-Around Time
 Standard Rush (ONLY IF PRE-APPROVED)
 Due Date: 10 DAY TAT Time:

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Client Information
 Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:
 Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16 ALPHA Job #: L1609965

Report Information Data Deliverables Billing Information
 FAX EMAIL Same as Client info PO #:
 ADEx Add'l Deliverables

Regulatory Requirements/Report Limits
 State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS
 Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS														SAMPLE HANDLING	TOTAL # BOTTLES
VOC 8260C	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDB DBCP 504-T												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
09965-01	MW-201	4-5-16	852	GW	RM
02	MW-202	↓	747	GW	RM
03	MW-102A		1112	GW	RM
04	MW-103A		1527	GW	RM
05	MW-104A		1422	GW	RM
06	CW-5B		952	GW	RM
07	CW-7B		1242	GW	RM
08	SW-5		1445	SW	RM
09	SW-8		1150	SW	RM
10	SW-10		1318	SW	RM

PLEASE ANSWER QUESTIONS ABOVE!
 Container Type - - - - -
 Preservative - - - - -

IS YOUR PROJECT MA MCP or CT RCP?
 FORM NO. 01-010 (rev. 5-JAN-12)

Relinquished By: [Signature] Date/Time: 4/5/16 1710
 Received By: [Signature] Date/Time: 4/7/16 0410

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE 2 OF 2



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran

Project Location: North Smithfield RI

Address: 40 Shattuck Road Suite 40

Project #: 224263

Andover MA 01810

Project Manager: Samantha Only

Phone: 866-702-6371

ALPHA Quote #:

Fax: 978-557-7948

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Email: solney@Woodardcurran.com

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: 11609965

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Sample ID	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDD-980CP-604-1																	
09965 -11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-12	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-14	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
09965 -11	SW-16	4-5-16	1328	GW	RM
-12	LCH-3		1342	GW	RM
-13	LCH-5		1030	GW	RM
-14	DUP-1		1112	GW	RM
06	CW-5B MS		952	GW	RM
06	CW-5B MSD		952	GW	RM
-15	EQUIPMENT BLANK		1355	GW	RM
-16	TRIP BLANK				

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-010 (rev. 5-JAN-12)

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710
	4/7/16 09:20		4/7/16 09:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

CHAIN OF CUSTODY

PAGE 1 OF 2



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@Woodardcurran.com

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609965

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

VOC 8260C	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDB DBCP 504.1															
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SAMPLE HANDLING
Filtration
 Done
 Not Needed
Preservation
 Lab to do
 Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials														Sample Specific Comments	
		Date	Time																	
09965-01	MW-201	4-5-16	852	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
02	MW-202		747	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
03	MW-102A		1112	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04	MW-103A		1527	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05	MW-104A		1422	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
06	CW-5B		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
07	CW-7B		1242	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
08	SW-5		1445	SW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
09	SW-8		1150	SW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	SW-10		1318	SW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms

CHAIN OF CUSTODY

PAGE 2 OF 2



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@Woodardcurran.com

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Only

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609965

Report Information Data Deliverables

FAX EMAIL
 ADEX Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

VOC 8260C	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDB DBCP 504.1																
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SAMPLE HANDLING
Filtration
 Done
 Not Needed
 Lab to do
Preservation
 Lab to do
(Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
09965 -11	SW-16	4-5-16	1328	GW	RM
-12	LCH-3	↓	1342	GW	RM
-13	LCH-3 LCH-5		1030	GW	RM
-14	DUP-1		1112	GW	RM
86	CW-5B MS		954	GW	RM
86	CW-5B MSD		952	GW	RM
-15	EQUIPMENT BLANK		1555	GW	RM
-16	TRIP BLANK				

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1706		4/5/16 1716

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-0110 (rev. 5-JAN-12)

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609965

Validation was performed on the organic analytical data collected by Woodard & Curran, Inc. at the L&RR Site in North Smithfield, Rhode Island. The data validation was conducted in accordance with "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review" August 2014; "EPA New England Environmental Data Review Supplement For Regional Data Review Elements and Superfund Specific Guidance/Procedures" April 2013, the Quality Assurance Project Plan (QAPP); and the referenced methods.

SDG	ANALYSES
L1609965	VOCs; 1,4-D; EDB & DBCP

VOCs=Volatile Organic Compounds by SW846 Method 8260C; 1,4-D=1,4-dioxane by SW846 Method 8270D selective ion monitoring (SIM); and EDB & DBCP=Ethylene dibromide & 1,2-dibromo-3-chloropropane by EPA Method 504.1

Field Sample ID	Accutest Laboratory ID
MW-201	L1609965-01
MW-202	L1609965-02
MW-102A	L1609965-03
MW-103A	L1609965-04
MW-104A	L1609965-05
CW-5B	L1609965-06
CW-7B	L1609965-07
SW-5	L1609965-08
SW-8	L1609965-09
SW-10	L1609965-10
SW-16	L1609965-11
LCH-3	L1609965-12
LCH-5	L1609965-13
DUP-1	L1609965-14
EQUIPMENT BLANK	L1609965-15
TRIP BLANK	L1609965-16

The data were evaluated and were based on the following parameters:

Organics

- Holding times
- Sample preservation
- Blank results
- Surrogate recoveries
- Matrix spike and matrix spike duplicate results
- Field duplicates
- Laboratory control sample (and duplicate) results

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609965

Organics

Holding Times

All samples for VOCs; 1,4-D; and EDB & DBCP were extracted and/or analyzed within technical holding times. No qualifications were applied to the data.

Sample Preservation

Samples were received at 3.6 and 4.0 degrees Celsius. No qualifications were applied to the data.

Blank Results

All VOCs; 1,4-D; and EDB & DBCP method blanks were non-detect (ND) for all target compounds with the following exception:

Blank ID	Compound	Concentration	Impacted Samples	Qualifier
WG881828-3	Hexachlorobutadiene	0.23 µg/L	L1609965-15 & 16	None, samples ND

VOCs; 1,4-D; and EDB & DBCP field blank samples, EQUIPMENT BLANK (L1609965-15) and TRIP BLANK (L1609965-16), were ND for all target compounds with the following exceptions:

Blank ID	Compound	Concentration	Impacted Samples	Qualifier
EQUIPMENT BLANK	Acetone	3.0 µg/L	All L1609965	U@RL, L1609965-01 through -9 & -11 through -14 U@RC, L1609965-10
TRIP BLANK	Acetone	2.0 µg/L	All L1609965	None, see EQUIPMENT BLANK

RL=reporting limit; RC=reported concentration

Surrogate Recoveries

All VOCs and 1,4-D surrogates met acceptance criteria. No qualifications were applied to the data.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

The VOCs; 1,4-D; and EDB & DBCP MS/MSD performed on sample CW-5B (L1609965-06) met acceptance criteria with the following exceptions:

Lab ID	Sample ID	Compound	%R/%R	QC Limits	Qualifier
L1609965-06	CW-5B	1,1-Dichloroethene	134/141	70-130%	None, sample ND
		1,2,3-Trichloropropane	OK/133	64-130%	None, sample ND
		Acetone	188/187	58-148%	Already "B"

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1609965

Lab ID	Sample ID	Compound	%R/%R	QC Limits	Qualifier
L1609965-06	CW-5B	2-Butanone	140/OK	63-138%	None, sample ND
		2-Hexanone	OK/140	57-130%	None, sample ND
		Acrylonitrile	134/143	70-130%	None, sample ND
		Tetrahydrofuran	138/149	58-130%	None, sample ND
		2,2-Dichloropropane	OK/137	63-133%	None, sample ND
		1,2-Dibromo-3-chloropropane	RPD-33	20	None, sample ND
		Tert-butyl alcohol	OK/146	70-130%	J

Field Duplicates

The VOCs; 1,4-D; and EDB & DBCP field duplicate samples MW-102A (L1609965-03)/DUP-1 (L1609965-14) met acceptance criteria. No qualifications were applied to the data.

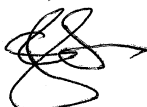
Laboratory Control Sample (and Duplicate) Results

All VOCs; 1,4-D; and EDB & DBCP laboratory control samples (LCS) or laboratory control samples/laboratory control sample duplicates (LCS/LCSD) met acceptance criteria with the following exceptions:

LCS/LCSD ID	Compound	%R/%R	QC Limits	Affected Sample	Qualifier
WG881828-1&2	Tetrahydrofuran	OK/131	58-130%	L1609965-15 & 16	None, samples ND
	2,2-Dichloropropane	136/OK	63-133%		None, samples ND
	Tert-butyl alcohol	141/143	70-130%		None, samples ND
WG882145-1&2	2-Hexanone	OK/134	57-130%	L1609965-1 through -14	None, samples ND
	Acrylonitrile	133/136	70-130%		None, samples ND
	Tetrahydrofuran	141/143	58-130%		J
	2,2-Dichloropropane	140/138	63-133%		None, samples ND
	Tert-butyl alcohol	146/148	70-130%		J

Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski:
President



Date: 5/3/2016



ANALYTICAL REPORT

Lab Number:	L1610027
Client:	Woodard & Curran 40 Shattuck Road Suite 110 Andover, MA 01810
ATTN:	Samantha Olney
Phone:	(978) 557-8150
Project Name:	L&RR
Project Number:	224263
Report Date:	04/12/16

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1610027-01	MW-201	WATER	NORTH SMITHFIELD, RI	04/05/16 08:52	04/05/16
L1610027-02	MW-202	WATER	NORTH SMITHFIELD, RI	04/05/16 07:47	04/05/16
L1610027-03	MW-102A	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1610027-04	MW-103A	WATER	NORTH SMITHFIELD, RI	04/05/16 15:27	04/05/16
L1610027-05	MW-104A	WATER	NORTH SMITHFIELD, RI	04/05/16 14:22	04/05/16
L1610027-06	CW-5B	WATER	NORTH SMITHFIELD, RI	04/05/16 09:52	04/05/16
L1610027-07	CW-7B	WATER	NORTH SMITHFIELD, RI	04/05/16 12:42	04/05/16
L1610027-08	SW-5	WATER	NORTH SMITHFIELD, RI	04/05/16 14:45	04/05/16
L1610027-09	SW-8	WATER	NORTH SMITHFIELD, RI	04/05/16 11:50	04/05/16
L1610027-10	SW-10	WATER	NORTH SMITHFIELD, RI	04/05/16 13:18	04/05/16
L1610027-11	SW-16	WATER	NORTH SMITHFIELD, RI	04/05/16 13:28	04/05/16
L1610027-12	LCH-3	WATER	NORTH SMITHFIELD, RI	04/05/16 13:42	04/05/16
L1610027-13	LCH-5	WATER	NORTH SMITHFIELD, RI	04/05/16 10:30	04/05/16
L1610027-14	DUP-1	WATER	NORTH SMITHFIELD, RI	04/05/16 11:12	04/05/16
L1610027-15	EQUIPMENT BLANK	WATER	NORTH SMITHFIELD, RI	04/05/16 13:55	04/05/16

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Case Narrative

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

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

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

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

HOLD POLICY

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

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

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Case Narrative (continued)

Report Submission

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


Dissolved Metals

The WG881523-3/-4 MS/MSD recoveries, performed on L1610027-06, are outside the acceptance criteria for arsenic (186%/178%), cadmium (171%/174%), and lead (174%/166%). A post digestion spike was performed and was within acceptance criteria.

The WG881523-3/-4 MS/MSD recoveries for manganese (150%/158%), performed on L1610027-06, do not apply because the sample concentration is greater than four times the spike amount added.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/12/16

METALS

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-01
 Client ID: MW-201
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 08:52
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/11/16 23:07	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/11/16 23:07	EPA 3005A	1,6010C	PS
Iron, Total	0.0290	J	mg/l	0.0500	0.0200	1	04/07/16 03:10	04/11/16 23:07	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 23:07	EPA 3005A	1,6010C	PS
Manganese, Total	0.0021	J	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 23:07	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 16:00	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 16:00	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 16:00	EPA 3005A	1,6010C	PS
Manganese, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 16:00	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-02
 Client ID: MW-202
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 07:47
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/11/16 23:12	EPA 3005A	1,6010C	PS
Cadmium, Total	0.001	J	mg/l	0.005	0.001	1	04/07/16 03:10	04/11/16 23:12	EPA 3005A	1,6010C	PS
Iron, Total	0.0541		mg/l	0.0500	0.0200	1	04/07/16 03:10	04/11/16 23:12	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 23:12	EPA 3005A	1,6010C	PS
Manganese, Total	0.0665		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 23:12	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:06	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 18:06	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:06	EPA 3005A	1,6010C	PS
Manganese, Dissolved	0.0661		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:06	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-03
 Client ID: MW-102A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.008		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:30	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 00:30	EPA 3005A	1,6010C	PS
Iron, Total	25.		mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 00:30	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:30	EPA 3005A	1,6010C	PS
Manganese, Total	7.77		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:30	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	0.0147		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:10	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 18:10	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:10	EPA 3005A	1,6010C	PS
Manganese, Dissolved	7.84		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:10	EPA 3005A	1,6010C	PS

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-04
 Client ID: MW-103A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 15:27
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:34	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 00:34	EPA 3005A	1,6010C	PS
Iron, Total	0.033	J	mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 00:34	EPA 3005A	1,6010C	PS
Lead, Total	0.0026	J	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:34	EPA 3005A	1,6010C	PS
Manganese, Total	0.0425		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:34	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	0.0035	J	mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:16	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 18:16	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:16	EPA 3005A	1,6010C	PS
Manganese, Dissolved	0.0480		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:16	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-05
 Client ID: MW-104A
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 14:22
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.088		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:39	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 00:39	EPA 3005A	1,6010C	PS
Iron, Total	19.		mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 00:39	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:39	EPA 3005A	1,6010C	PS
Manganese, Total	0.853		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:39	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	0.0681		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:21	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 18:21	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:21	EPA 3005A	1,6010C	PS
Manganese, Dissolved	0.768		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:21	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-06
 Client ID: CW-5B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 09:52
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/11/16 22:49	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/11/16 22:49	EPA 3005A	1,6010C	PS
Iron, Total	0.044	J	mg/l	0.050	0.020	1	04/07/16 03:10	04/11/16 22:49	EPA 3005A	1,6010C	PS
Lead, Total	0.0030	J	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 22:49	EPA 3005A	1,6010C	PS
Manganese, Total	3.32		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 22:49	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 16:05	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 16:05	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 16:05	EPA 3005A	1,6010C	PS
Manganese, Dissolved	3.14		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 16:05	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-07
 Client ID: CW-7B
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 12:42
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:43	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 00:43	EPA 3005A	1,6010C	PS
Iron, Total	4.1		mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 00:43	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:43	EPA 3005A	1,6010C	PS
Manganese, Total	1.83		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 00:43	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:25	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 18:25	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:25	EPA 3005A	1,6010C	PS
Manganese, Dissolved	1.38		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 18:25	EPA 3005A	1,6010C	PS



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-08
 Client ID: SW-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 14:45
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:47	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:29	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-09
 Client ID: SW-8
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 11:50
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	0.159		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:52	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	0.0031	J	mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 18:34	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-10
 Client ID: SW-10
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 13:18
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 00:56	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	0.0039	J	mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 19:12	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-11
 Client ID: SW-16
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 13:28
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	0.003	J	mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 01:01	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	0.0032	J	mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 19:16	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-12
 Client ID: LCH-3
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 13:42
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 01:28	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 19:20	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-13
 Client ID: LCH-5
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 10:30
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
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Total Metals - Westborough Lab

Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 01:32	EPA 3005A	1,6010C	PS
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Dissolved Metals - Westborough Lab

Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 19:25	EPA 3005A	1,6010C	PS
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Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-14
 Client ID: DUP-1
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 11:12
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.0090		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 01:37	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 01:37	EPA 3005A	1,6010C	PS
Iron, Total	27.		mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 01:37	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 01:37	EPA 3005A	1,6010C	PS
Manganese, Total	8.43		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 01:37	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	0.0164		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 19:29	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 19:29	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 19:29	EPA 3005A	1,6010C	PS
Manganese, Dissolved	8.01		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 19:29	EPA 3005A	1,6010C	PS

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID: L1610027-15
 Client ID: EQUIPMENT BLANK
 Sample Location: NORTH SMITHFIELD, RI
 Matrix: Water

Date Collected: 04/05/16 13:55
 Date Received: 04/05/16
 Field Prep: Field Filtered
 (Dissolved
 Metals)

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	ND		mg/l	0.005	0.002	1	04/07/16 03:10	04/12/16 01:41	EPA 3005A	1,6010C	PS
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/07/16 03:10	04/12/16 01:41	EPA 3005A	1,6010C	PS
Iron, Total	ND		mg/l	0.050	0.020	1	04/07/16 03:10	04/12/16 01:41	EPA 3005A	1,6010C	PS
Lead, Total	ND		mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 01:41	EPA 3005A	1,6010C	PS
Manganese, Total	0.0041	J	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/12/16 01:41	EPA 3005A	1,6010C	PS
Dissolved Metals - Westborough Lab											
Arsenic, Dissolved	ND		mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 21:20	EPA 3005A	1,6010C	PS
Cadmium, Dissolved	ND		mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 21:20	EPA 3005A	1,6010C	PS
Lead, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 21:20	EPA 3005A	1,6010C	PS
Manganese, Dissolved	ND		mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 21:20	EPA 3005A	1,6010C	PS

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-15 Batch: WG881117-1									
Arsenic, Total	ND	mg/l	0.005	0.002	1	04/07/16 03:10	04/11/16 21:56	1,6010C	PS
Cadmium, Total	ND	mg/l	0.005	0.001	1	04/07/16 03:10	04/11/16 21:56	1,6010C	PS
Iron, Total	ND	mg/l	0.050	0.020	1	04/07/16 03:10	04/11/16 21:56	1,6010C	PS
Lead, Total	ND	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 21:56	1,6010C	PS
Manganese, Total	ND	mg/l	0.0100	0.0020	1	04/07/16 03:10	04/11/16 21:56	1,6010C	PS

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01-15 Batch: WG881523-1									
Arsenic, Dissolved	ND	mg/l	0.0050	0.0020	1	04/08/16 03:28	04/11/16 15:43	1,6010C	PS
Cadmium, Dissolved	ND	mg/l	0.0050	0.0007	1	04/08/16 03:28	04/11/16 15:43	1,6010C	PS
Lead, Dissolved	ND	mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 15:43	1,6010C	PS
Manganese, Dissolved	ND	mg/l	0.0100	0.0020	1	04/08/16 03:28	04/11/16 15:43	1,6010C	PS

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01-15 Batch: WG881117-2								
Arsenic, Total	101		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Iron, Total	110		-		80-120	-		
Lead, Total	102		-		80-120	-		
Manganese, Total	101		-		80-120	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01-15 Batch: WG881523-2								
Arsenic, Dissolved	106		-		80-120	-		
Cadmium, Dissolved	104		-		80-120	-		
Lead, Dissolved	99		-		80-120	-		
Manganese, Dissolved	120		-		80-120	-		

Matrix Spike Analysis Batch Quality Control

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-15 QC Batch ID: WG881117-3 WG881117-4 QC Sample: L1610027-06 Client ID: CW-5B											
Arsenic, Total	ND	0.12	0.124	103		0.121	101		75-125	2	20
Cadmium, Total	ND	0.051	0.054	106		0.053	105		75-125	1	20
Iron, Total	0.044J	1	0.97	97		0.99	99		75-125	2	20
Lead, Total	0.0030J	0.51	0.526	103		0.522	102		75-125	1	20
Manganese, Total	3.32	0.5	3.75	86		3.88	112		75-125	3	20

Dissolved Metals - Westborough Lab Associated sample(s): 01-15 QC Batch ID: WG881523-3 WG881523-4 QC Sample: L1610027-06 Client ID: CW-5B											
Arsenic, Dissolved	ND	0.12	0.223	186	Q	0.213	178	Q	75-125	5	20
Cadmium, Dissolved	ND	0.051	0.0873	171	Q	0.0886	174	Q	75-125	1	20
Lead, Dissolved	ND	0.51	0.885	174	Q	0.845	166	Q	75-125	5	20
Manganese, Dissolved	3.14	0.5	3.89	150	Q	3.93	158	Q	75-125	1	20



Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler

A Absent
 B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610027-01A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-01B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-02A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-02B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-03A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-03B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-04A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-04B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-05A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-05B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-06A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-06A1	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-06A2	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-06B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-06B1	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),MN-TI(180),CD-TI(180)
L1610027-06B2	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),MN-TI(180),CD-TI(180)
L1610027-07A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-07B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-08A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-SI(180)
L1610027-08B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180)
L1610027-09A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-SI(180)

*Values in parentheses indicate holding time in days

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610027-09B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180)
L1610027-10A	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-SI(180)
L1610027-10B	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-TI(180)
L1610027-11A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-SI(180)
L1610027-11B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180)
L1610027-12A	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-SI(180)
L1610027-12B	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-TI(180)
L1610027-13A	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-SI(180)
L1610027-13B	Plastic 500ml HNO3 preserved	B	<2	4.9	Y	Absent	AS-TI(180)
L1610027-14A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-14B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)
L1610027-15A	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	PB-SI(180),AS-SI(180),MN-SI(180),CD-SI(180)
L1610027-15B	Plastic 500ml HNO3 preserved	A	<2	4.6	Y	Absent	AS-TI(180),PB-TI(180),FE-TI(180),MN-TI(180),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



Project Name: L&RR
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Lab Number: L1610027
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Data Qualifiers

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

Project Name: L&RR
Project Number: 224263

Lab Number: L1610027
Report Date: 04/12/16

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

CHAIN OF CUSTODY

PAGE 1 OF 2



Project Information

Project Name: L&RR

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: Woodard & Curran

Address: 40 Shattuck Road Suite 40

Andover MA 01810

Phone: 866-702-6371

Fax: 978-557-7948

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1610027

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Sample ID	Matrix	Initials	Dissolved As, Cd, Mn, Pb 6010C	T. Metals As, Cd, Mn, Pb, Fe 6010C	Dissolved As 6010C	Total As 6010C												
1027-01	MW-201	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	MW-202	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	MW-102A	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	MW-103A	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	MW-104A	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	CW-5B	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	CW-7B	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	SW-5	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	SW-8	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SW-10	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
1027-01	MW-201	4-5-16	852	GW	RM
02	MW-202		747	GW	RM
03	MW-102A		1112	GW	RM
04	MW-103A		1527	GW	RM
05	MW-104A		1422	GW	RM
06	CW-5B		952	GW	RM
07	CW-7B		1242	GW	RM
08	SW-5		1445	SW	RM
09	SW-8		1150	SW	RM
10	SW-10		1316	SW	RM

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO. 01-01(1)
(rev. 5-JAN-12)

CHAIN OF CUSTODY

PAGE 2 OF 2



Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran

Project Location: North Smithfield RI

Address: 40 Shattuck Road Suite 40

Project #: 224263
 Project Manager: Samantha Only

Andover MA 01810

ALPHA Quote #:

Phone: 866-702-6371

Turn-Around Time

Fax: 978-557-7948

Standard Rush (ONLY IF PRE-APPROVED)

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab: 4/5/16 ALPHA Job #: L1610027

Report Information Data Deliverables Billing Information

FAX EMAIL Same as Client info PO #:
 ADEx Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

	Disolved As, Cd, Mn, Pb 6010C	T. Metals As, Cd, Mn, Pb, Fe 6010C	Disolved As 6010C	Total AS 6010C																																	
--	-------------------------------	------------------------------------	-------------------	----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SAMPLE HANDLING
Filtration
 Done
 Not Needed
Preservation
 Lab to do
 Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS																TOTAL # BOTTLES															
		Date	Time			Disolved As, Cd, Mn, Pb 6010C	T. Metals As, Cd, Mn, Pb, Fe 6010C	Disolved As 6010C	Total AS 6010C																												
10027-11	SW-16	4-5-16	1328	GW	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
12	LCH-3		1342	GW	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
13	LCH-5		1030	GW	RM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
14	DUP-1		1112	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
06	CW-5B MS		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
06	CW-5B MSD		952	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	
15	EQUIPMENT BLANK		1355	GW	RM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	

PLEASE ANSWER QUESTIONS ABOVE! Container Type Preservative

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By: Date/Time: 4/5/16 1210 Received By: Date/Time: 4/5/16 1716

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1610027

Validation was performed on the inorganic analytical data collected by Woodard & Curran, Inc. at the L&RR Site in North Smithfield, Rhode Island. The data validation was conducted in accordance with "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" August 2014; "EPA New England Environmental Data Review Supplement For Regional Data Review Elements and Superfund Specific Guidance/Procedures" April 2013, the Quality Assurance Project Plan (QAPP); and the referenced methods.

SDG	ANALYSES
L1610027	As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved)

As, Cd, Mn, Pb (total & dissolved)=Arsenic, cadmium, manganese, and lead (total & dissolved) by SW846 Methods 3005A/6010C; Fe=Iron (total) by SW846 Methods 3005A/6010C

Field Sample ID	Accutest Laboratory ID
MW-201	L1610027-01
MW-202	L1610027-02
MW-102A	L1610027-03
MW-103A	L1610027-04
MW-104A	L1610027-05
CW-5B	L1610027-06
CW-7B	L1610027-07
SW-5	L1610027-08
SW-8	L1610027-09
SW-10	L1610027-10
SW-16	L1610027-11
LCH-3	L1610027-12
LCH-5	L1610027-13
DUP-1	L1610027-14
EQUIPMENT BLANK	L1610027-15

The data were evaluated and were based on the following parameters:

Inorganics

- Holding times
- Sample preservation
- Blank results
- Matrix spike and matrix spike duplicate results
- Laboratory duplicate results
- Field duplicates
- Laboratory control sample results

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1610027

Inorganics

Holding Times

All As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) samples were digested and/or analyzed within technical holding times. No qualifications were applied to the data.

Sample Preservation

Samples were received at 4.6 and 4.9 degrees Celsius. No qualifications were applied to the data.

Blank Results

All As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) method blanks were non-detect (ND) for all analytes. No qualifications were applied to the data.

As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) field blank sample, EQUIPMENT BLANK (L1610027-15), was ND for all target analytes with the following exception:

Blank ID	Compound	Concentration	Impacted Samples	Qualifier
EQUIPMENT BLANK	Mn (total)	0.0041 mg/L	All L1610027	U @ RL, L1610027-01

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

The As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) MS/MSD performed on sample CW-5B (L1610027-06) met acceptance criteria with the following exceptions:

MS/MSD ID	Analyte	%R/%R	QC Limits	Affected Samples	Qualifier
CW-5B	As (dissolved)	186/178	75-125%	All L1610027	J
	Cd (dissolved)	171/174			None, sample samples ND
	Mn (dissolved)	150/158			J
	Pb (dissolved)	174/166			None, sample samples ND

Laboratory Duplicate Results

No As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) laboratory duplicate was performed on a sample from this analytical package. No qualifications were applied to the data.

Field Duplicates

The As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) field duplicate samples MW-102A (L1610027-03)/DUP-1 (L1610027-14) met acceptance criteria. No qualifications were applied to the data.

**L&RR
PROJECT SUMMARY**

Alpha Analytical Job Number: L1610027

Laboratory Control Sample Results

All As, Cd, Mn, Fe, Pb (total) & As, Cd, Mn, Pb (dissolved) laboratory control samples (LCS) met acceptance criteria. No qualifications were applied to the data.

Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski:
President



Date: 5/3/2016

APPENDIX C: GFS SAMPLING REPORT



GEOLOGICAL FIELD SERVICES, INC.

April 8, 2016

Ms. Samantha Olney
Woodard & Curran
40 Shattuck Road, Suite 110
Andover, MA 01810

RE: L&RR Landfill, Rt. 7 North Smithfield RI
Ground and Surface Water Sampling

Dear Ms. Olney,

On April 5, 2016, Geological Field Services, Inc. (GFS) personnel conducted environmental sampling activities at the above referenced property. Activities included sampling seven monitoring wells and six surface water locations and taking water level measurements in nineteen monitoring wells at the site. Table 3 summarizes the measured depths to ground water. Ground water samples were collected from seven wells identified as MW-201, MW-202, CW-5B, MW-102A, MW-103A, MW-104A and CW-7B. Surface water samples were collected from the locations identified as SW-5, SW-8, SW-10, SW-16 LCH-3 and LCH-5. The following is a description of related field activities.

Ground Water Well Gauging

On April 5, 2016, GFS gauged the depth to water in nineteen ground water monitoring wells on site. Depths to ground water were all measured from the top of the wells PVC casing. The total depths were also measured in twelve of the nineteen wells. Attempts were made to remove the dedicated sampling pumps from monitoring wells MW-102A, MW-103A, CW-5B, CW-6B (new) and CW-7C to gauge the total depth. Heavy resistance was encountered when attempting to remove the pumps, to ensure that the pumps were not permanently jammed in the wells, they were lowered back to sampling depth and the total depth of the wells was not gauged. Monitoring wells CW-6C and CW-6B were blocked above the water table; therefore no total depth measurements were gauged. All of the well gauging data is presents on the attached table.

Surface Water Sample Collection

On April 5, 2016, GFS collected six surface water samples identified as SW-5, SW-8, SW-10, SW-16, LCH-3 and LCH-5 were collected from the areas as closely identified on the site map. Surface water samples SW-5, SW-8, SW-10, SW-16, LCH-3 and LCH-5 were collected with a Geotech peristaltic sampling pump and virgin tubing to minimize the addition of sediment to the sample. Field parameters were measured at each sample location and recorded on the attached field sheets. Surface water samples collected for dissolved metals analysis were field filtered through a 0.45-micron filter prior to preservation in the field. All of the surface water samples were packed on ice and delivered to Alpha Analytical Laboratories on April 5, 2016; a copy of the chain of custody is attached.

Ground Water Sample Collection

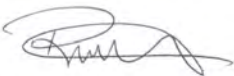
On April 5, 2016, seven monitoring wells identified as MW-201, MW-202, CW-5B, MW-102A, MW-103A, MW-104A and CW-7B. All of the wells were sampled using dedicated QED bladder pumps except monitoring well CW-7B; a Durham Geoslope (DGSI) bladder pump was used for sample collection. The DGSI sampling pump was decontaminated prior to the introduction to the well and after removal form the well with a series of Alconox and de-ionized water rinses. After the DGSI pump was cleaned, an Equipment Blank (EB) sample was collected by running laboratory grade De-ionized water through the pump into appropriate sample bottles.

Prior to purging, the ground water level in each monitoring well was measured to the nearest 0.01 foot using an electronic water level sensing device. The depth to water and historical well depth measurements were used to calculate the volume of standing water in the well. Prior to purging, all wells were examined for the presence of free-phase petroleum product by observing the condition of the water level indicator when it was withdrawn from the well. No free-phase petroleum product was observed. Monitoring wells MW-201, MW-202, CW-5B, MW-102A, MW-103A and MW-104A were then purged using dedicated bladder sampling pumps and dedicated HDPE tubing. Monitoring well CW-7B was purged and sampled using a Durham Geoslope bladder pump. Temperature, specific conductivity, dissolved oxygen, pH and oxidation-reduction potential were measured using a YSI 556 meter. The YSI was calibrated at the start of the sampling day. Specific conductivity was calibrated using a 1,000-umhos/cm standard and dissolved oxygen was calibrated using the 100% saturation procedure. PH was calibrated using the three-point method using pH 4, 7 and 10 standards. Turbidity was measured using a Hach 2100Q turbidity meter calibrated with a 10.0 NTU standard at the start of the sampling day. At the end of the sampling day the equipment calibration drift was checked with the same standards used during the morning calibration. A table summarizing the field calibration is attached.

All of the monitoring wells were sampled in accordance with EPA's low flow sampling protocol. The bladder pump was started on the lowest setting and the draw down on the well was monitored. The pumping speed was increased slowly until the draw down stabilized. Efforts were made to minimize the draw down on the well. Field parameters were measured when water began to discharge from the flow through cell. Parameters were recorded on field sheets approximately every five minutes until they stabilized to within 10% and the turbidity of the purge water fell below 5.0 NTUs. Monitoring wells CW-7B and MW-104A stabilized with little to no reduction in the turbidity it is recommended that the wells be developed again to remove fines and possibly lower the turbidity in the sample water. After the field parameters stabilized for three consecutive readings, ground water was pumped directly into the sample bottles. The DGS sampling pump was decontaminated prior to the introduction to the well and after removal from the well with a series Alconox and de-ionized water rinses. All of the samples collected for dissolved metals were field filtered through a 0.45-micron filter prior to preservation with nitric acid. A duplicate sample was collected from MW-102A and submitted to the laboratory as Dup-1. A matrix spike and matrix spike duplicate (MS/MSD) were collected from CW-5B. All of the ground water samples were packed on ice and hand delivered to Alpha Analytical Laboratories on April 5, 2016. Copies of the field sampling sheets and chains-of-custody are attached.

Please contact me if you have any questions.

Sincerely:
GEOLOGICAL FIELD SERVICES, INC.



Ryan J. MacKay
Senior Geologist

07108.0416

Table 3
Groundwater Measurement and Elevation Summary
Annual Well Sampling - April, 2016
L and RR Superfund Site - North Smithfield, RI

Well Location	Geologic Unit ⁽¹⁾	Hydro-geologic Unit ⁽²⁾	Screened Interval (fb toc)		MP Elevation (ft amsl)	Measured Well Depth (fb toc)	Water Level (fb toc)	Water Elevation (ft amsl)
			Top	Bottom				
MW -101	BR	FR BR	74.2	79.5	329.07	83.4	77.60	251.47
MW - 102A	UN	IC	62.7	73.3	258.03	*	10.81	247.22
MW - 102B	UN	K	28.9	39.4	253.74	41.07	8.56	245.18
MW - 103A	BR	FR BR	39.2	55.1	268.48	*	14.79	253.69
MW - 103B	UN	K	12.0	21.8	268.57	29.26	14.75	253.82
MW - 104A	UN	IC	43.5	54.0	263.54	54.02	17.68	245.86
MW - 104B	UN	K	14.5	24.0	263.77	25.56	12.47	251.30
CW - 5A	BR	FR BR	125.0	135.0	304.31	136.68	57.41	246.90
CW - 5B	UN	IC	92.0	102.0	303.92	Blocked at 22.1		303.92
CW - 5C	UN	K	48.5	68.5	303.98	68.52	56.91	247.07
CW - 6A	BR	FR BR	82.0	92.0	264.06	98.13	18.78	245.28
CW-6B	UN	IC	51.0	61.0	261.74	Blocked @ 16.61		261.74
CW - 6B New	UN	IC				*	18.99	
CW - 6C	UN	K	13.0	33.0	263.98	Blocked @ 16.49		
CW - 7A	UN	IC	37.0	47.0	255.59	48.22	8.75	246.84
CW - 7B	UN/BR	IC/FR BR	43.0	53.0	255.50	46.39	8.48	247.02
CW - 7C	UN/BR	K	7.0	27.0	255.05	*	8.05	247.00
MW-201	UN/BR	IC	69.0	89.0	320.25	90.68	68.71	251.54
MW-202	UN/BR	IC	21.0	38.6	253.26	38.32	10.81	242.45

Notes:

ft amsl - feet above mean sea level
fbt toc - feet below top of casing
MP - measuring point

* Pump couldnot be removed from well without risk of damage,
total depth not gauged

- (1) BR - Bedrock
UN - Unconsolidated
(2) FR BD - Fractional Bedrock
K - Kame
IC - Ice Contact

GFS
Daily Instrument and Calibration Log

Date: April 5, 2016

Standard Value	pH4	pH7	pH10	SC 1000	ORP 236 mv	100% Sat.
Standard Lot Number	2AH414	2AH113	2AK717	2A1234	Zobell	
Instrument Serial #	pH4	pH7	pH10	SC 1000	ORP	D.O.
11G100862						
Pre Calibration	3.81	6.95	10.02	925	225.0	93.1
Calibrated	4.00	7.01	10.00	1000	236.0	99.6
End of Day Drift	4.04	7.02	10.06	1008	234.0	98.9

Date: April 5, 2016

10.0 NTU Within Range

Hach:13100028784

Calibration check AM	9.95	Yes
Calibration check AM	9.98	Yes

Geological Field Services, Inc. Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: Mackay Belles
 Weather: Sunny 30

Well Number: MW-102A
 Date: 4-5-16
 Time: 10:31

Protective Casing Present Y N
 Protective Casing Locked Y N
 Cap on Well Riser Y N
 Physical Damage Y N

Cement Pad Present Y N
 Standing Water Y N
 Visible Heaving Y N
 Visible Subsidence Y N

Comment: Collect Duplicate (DUP-1) also collect one extra set of VOC vials for LL-Sim indicate hold on COC and run only if TCE is J-Flagged below 5 ug/L

Depth to Water: 10.81
 Depth to Product: —
 Total Depth: N/A 273
 Water Column: 62.19

Type of Protective Casing: RB SU
 Measuring Point: TOC TPC
 Well Volume: 10

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gall
1040	6.41	125.	3.21	181.5	6.95	20.1	0.2	0.5
1045	10.20	98	0.47	180.1	5.75	10	0.3	1.5
1050	9.21	121	0.25	161.2	5.39	8	0.3	2.5
1055	9.16	630	0.19	165.3	5.69	7	0.3	3.5
1100	9.19	128	0.16	162.1	5.72	45.	0.2	4.5
1105	9.21	127	0.16	163.5	5.71	2.54	0.3	5.5
1110	9.13	125	0.15	161.6	5.71	2.06	0.3	6.5

Color: Clear
 Odor: N/A

Sheen: Y N
 Turbidity: L M H VH

Volume Purged: 3000
 Duration: 6:05

Sample Collection Date: 4/5/16 Time: 1112

Remarks: Pump Jammed in well Did not remove per ID = 102B 8.56

Signature of Sampler: [Signature]

Geological Field Services, Inc. Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill

Well Number: MW-103A

Location: North Smithfield RI

Date: 4-5-16

Sampler: Mackay ~~Delea~~

Time: 1453

Weather: Sun 36

Protective Casing Present Y N
 Protective Casing Locked Y N
 Cap on Well Riser Y N
 Physical Damage Y N

Cement Pad Present Y N
 Standing Water Y N
 Visible Heaving Y N
 Visible Subsidence Y N

Comment: 103B = 4.75

Depth to Water: 14.75

Type of Protective Casing: RB SU

Depth to Product: —

Measuring Point: TOC TPC

Total Depth: NM Pump stuck 25'

Water Column: 40.21

Well Volume: 6.59

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal/L
1500	9.27	154.6	2.01	101.2	6.57	9.81	2.5	0.3
1505	9.55	152.6	1.46	111.3	6.63	9.00	2.5	4.5
1510	9.58	151.6	1.45	110.6	6.72	2.17	2.5	6.0
1515	9.60	151.8	1.41	119.5	6.76	2.00	2.5	7.5
1520	9.61	151.7	1.39	118.7	6.75	1.90	2.5	9.0
1525	9.59	152.5	1.40	119.2	6.74	1.90	2.5	10.5

Color: Clear
 Odor: NONE

Sheen: Y N
 Turbidity: L M H VH

Volume Purged: 10.5
 Duration: ~~20min~~ 30

Sample Collection

Date: 4/5/16 Time: 1527

Remarks: Pump stuck in well did not attempt to remove.

Signature of Sampler: R

Geological Field Services, Inc. Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: MackKay Della
 Weather: SUNNY 35

Well Number: MW-104A
 Date: 9-5-16
 Time: 1310

- | | | | | | |
|---------------------------|------------------------------------|------------------------------------|--------------------|------------------------------------|------------------------------------|
| Protective Casing Present | <input checked="" type="radio"/> Y | <input type="radio"/> N | Cement Pad Present | <input checked="" type="radio"/> Y | <input type="radio"/> N |
| Protective Casing Locked | <input type="radio"/> Y | <input checked="" type="radio"/> N | Standing Water | <input type="radio"/> Y | <input checked="" type="radio"/> N |
| Cap on Well Riser | <input checked="" type="radio"/> Y | <input type="radio"/> N | Visible Heaving | <input type="radio"/> Y | <input checked="" type="radio"/> N |
| Physical Damage | <input checked="" type="radio"/> Y | <input checked="" type="radio"/> N | Visible Subsidence | <input type="radio"/> Y | <input checked="" type="radio"/> N |

Comment: 1043 -12.47
HEAVY TURBIDITY AT START NO PARAMETER NTU DROPS

Depth to Water: 17.68 Type of Protective Casing: RB SU
 Depth to Product: — Measuring Point: TOC TPC
 Total Depth: 54.03
 Water Column: 36.35 Well Volume: 5.96

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal L
1350	13.21	135	1.26	-15.3	6.21	OVER	0.2	20
14:00	14.8	401	0.95	-15.2	6.24	909	0.2	22
1405	14.83	459	0.08	-16.1	6.19	647	0.2	24
1410	14.77	434	0.09	-19.2	6.24	526	0.2	26
1415	14.76	435	0.10	-19.1	6.23	525	0.2	28
1420	14.75	434	0.09	-19.2	6.24	526	0.2	30
<u>STABLE w/ high TURBIDITY PURGE</u>							<u>1hr</u>	<u>1hr 10min</u>

Color: ORANGE Sheen: Y N Volume Purged: 30L
 Odor: None Turbidity: L M H VH Duration: 1hr 10min

Sample Collection Date: 4/5/16 Time: 1422

Remarks: START PURGE WAS ALMOST SLUDGE IT WAS SO TURBED
* well needs to be developed DID NOT ATTEMPT TO RILL UP.

Signature of Sampler: [Signature]

Geological Field Services, Inc.

Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: Mackay ~~Dellea~~
 Weather: Sunny 25

Well Number: CW-5B
 Date: 4-9-14
 Time: 9:20

Protective Casing Present Y N
 Protective Casing Locked Y N
 Cap on Well Riser Y N
 Physical Damage Y N

Cement Pad Present Y N
 Standing Water Y N
 Visible Heaving Y N
 Visible Subsidence Y N

Comment: COLLECT MS AND MSD AT THIS LOCATION

Az 57.41 C 56.91

Depth to Water: blocked @ 22.1
 Depth to Product: _____
 Total Depth: NM
 Water Column: _____

Type of Protective Casing: RB SU
 Measuring Point: TOC TPC

Well Volume: _____

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
925	9.76	110	8.32	130.1	8.39	10.5	0	1
930	9.75	121	1.01	129.5	8.00	7.3	—	2
935	9.75	118	0.92	127.6	7.16	6.2	—	3
940	9.74	117	0.95	125.7	7.20	3.1	—	4
945	9.45	116	0.96	124.2	7.18	3.0	—	5
950	9.42	117	0.95	125.6	7.15	3.1	—	6

Color: Clear
 Odor: NONE

Sheen: Y N
 Turbidity: L M H VH

Volume Purged: 66
 Duration: 30 min

Sample Collection

Date: 4/5/14 Time: 952

Remarks: MOUSE NEST IN WELL CANNOT GAUGE DEPTH TO WATER
SMALL FLECKS OF ORGANIC MATERIAL IN PURGE WATER INTERMITTENTLY

Signature of Sampler: R

**Geological Field Services, Inc.
Low Flow Well Sampling Data**

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: Mackay ~~Dellea~~
 Weather: Sunny 35F

Well Number: CW-7B
 Date: 3-5-16
 Time: 1205

Protective Casing Present Y N
 Protective Casing Locked Y N
 Cap on Well Riser Y N
 Physical Damage Y N

Cement Pad Present Y N
 Standing Water Y N
 Visible Heaving Y N
 Visible Subsidence Y N

Comment: 7A 8.75
7B 8.05

Depth to Water: 8.48
 Depth to Product: —
 Total Depth: 46.4
 Water Column: 37.92

Type of Protective Casing: RB SU
 Measuring Point: TOC TPC
 Well Volume: 6.21

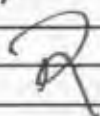
Development/Purge Device: SAMPLE WITH DGSI BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal. L
1210	12.43	135	1.37	125.4	6.33	28.6	0.2	0.5
1215	12.44	133	2.75	128.1	6.23	25.1	0.2	2.5
1220	12.42	131	2.55	131.5	6.25	24.9	0.2	2.5
1225	12.40	135	2.61	129.6	6.31	23.1	0.2	3.5
1230	12.60	134	2.01	128.1	6.29	22.0	0.2	4.5
1235	12.61	134	1.99	127.5	6.28	22.0	0.2	5.5
1240	12.62	134	1.99	127.3	6.29	22.0	0.2	6.5

Color: clear Sheen: Y N Volume Purged: 6.5L
 Odor: NONE Turbidity: L M H VH Duration: 30 MIN.

Sample Collection Date: 3/5/16 Time: 1242

Remarks: Well stable sample w/ elevated turbidity sampled at 22 NTU.

Signature of Sampler: 

Geological Field Services, Inc. Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill

Well Number: MW-201

Location: North Smithfield RI

Date: 7-5-16

Sampler: Mackay ~~Bellea~~

Time: 8:20

Weather: Sunny

Protective Casing Present Y N

Cement Pad Present Y N

Protective Casing Locked Y N

Standing Water Y N

Cap on Well Riser Y N

Visible Heaving Y N

Physical Damage Y N

Visible Subsidence Y N

Comment: TOP OF ROYALCLAD CRACKED

Depth to Water: -67.8/68.71

Type of Protective Casing: RB SU

Depth to Product: _____

Measuring Point: TOC TPC

Total Depth: 90.71

Water Column: _____

Well Volume: _____

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal
825 <u>830</u>	8.15	31	10.6	116.5	6.47	10.6	0.2	0.5
830 <u>835</u>	8.20	35	9.2	121.3	6.49	8.2	0.1	2.0
835 <u>840</u>	8.25	37	9.8	125.2	6.51	3.1	0.1	3.5
840 <u>845</u>	8.27	39	9.7	122.6	6.52	3.2	0.1	5.0
845 <u>850</u>	8.29	36	9.6	121.4	6.57	3.1	0.1	6.5
850 <u>855</u>	8.26	35	9.44	129.1	6.49	1.31	0.1	8.0

Color: Clear
Odor: NR

Sheen: Y N
Turbidity: L M H VH

Volume Purged: 8.6
Duration: 25m

Sample Collection

Date: 4/9/16

Time: 852

Remarks: _____

Signature of Sampler: [Signature]

Geological Field Services, Inc. Low Flow Well Sampling Data

Project ID: 07108 L&RR Landfill

Well Number: MW-202

Location: North Smithfield RI

Date: 4-5-16

Sampler: Mackay Delea

Time: 7:30

Weather: P. Sun 25F

Protective Casing Present Y N

Cement Pad Present Y N

Protective Casing Locked Y N

Standing Water Y N

Cap on Well Riser Y N

Visible Heaving Y N

Physical Damage Y N

Visible Subsidence Y N

Comment: DID NOT PULL PUMP FUR TO DID NOT ENCOUNTERED

RESISTANCE ON REMOVAL & DID NOT WANT TO RISK JAMMING PUMP.

Depth to Water: 10.181

Type of Protective Casing: RB SU

Depth to Product: -

Measuring Point: T00 TPC

Total Depth: 38.34

Water Column: 27.53

Well Volume: 4.5

Development/Purge Device: DEDICATED BLADDER PUMP

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gall
725	8.33	221	9.31	106.5	6.74	6.1	0.1	0.5
730	8.39	218	9.52	121.5	6.31	3.2	0.1	2.0
735	8.41	221	9.14	95.3	6.21	3.1	0.1	9.5
740	8.50	226	9.815	95.2	6.05	3.4	0.1	5.0
745	8.52	223	9.76	95.1	6.16	3.2	0.1	8.5

Color: Clear

Sheen: Y N

Volume Purged: 8.61

Odor: None

Turbidity: L M H VH

Duration: 20 min

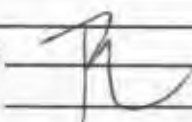
Sample Collection

Date: 4/5/16

Time: 7:47

Remarks: _____

Signature of Sampler: _____



Geological Field Services, Inc.
Surface Water Sampling Data

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: MACKAY
 Weather: SUNNY 35

Surfafe Water ID: LCH-3
 Date: 4-5-16
 Time: 1340

Comment: low land area south of MW-104 couplet

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1340	32	181.6	421	-2.6	6.95	29	—	—

Color: CLEAR
 Odor: NONE

Sheen: Y N
 Turbidity: L M H VH


Volume Purged:
 Duration:

Sample Collection

Date: 4/5/16

Time: 1342

Remarks: _____

Signature of Sampler: 

Geological Field Services, Inc.
Surface Water Sampling Data

Project ID: 07108 L&RR Landfill

Surfafe Water ID: LHC-5

Location: North Smithfield RI

Date: 4-5-16

Sampler: MACKEY

Time: 10:20

Weather: Sun 30

Comment: Wetland area north of MW-102 couplet

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1027	1.8	1516	8.21	1516	6.95	16.8	-	-

Color: Clear
 Odor: NM

Sheen: Y N
 Turbidity: L M H VH

Volume Purged:
 Duration:

Sample Collection

Date: 4/5/16

Time: 1070

Remarks: _____

Signature of Sampler: 

**Geological Field Services, Inc.
Surface Water Sampling Data**

Project ID: 07108 L&RR Landfill Surdafa Water ID: SW-5

Location: North Smithfield RI Date: 3-5-16

Sampler: NACKAY Time: 1445

Weather: Sun 30F

Comment: In stream south east of MW-103 couplet

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1445	3.1	101.6	4.25	-3.6	6.95	18.1	-	-

Color: CLEAR
Odor: None

Sheen: Y N
Turbidity: L M H VH

Volume Purged:
Duration:

Sample Collection Date: 3/5/16 Time: 1445

Remarks:

Signature of Sampler: R

**Geological Field Services, Inc.
Surface Water Sampling Data**

Project ID: 07108 L&RR Landfill

Surfate Water ID: SW-8

Location: North Smithfield RI

Date: 4-5-16

Sampler: M. Kelly

Time: 1150

Weather: sun 70

Comment: In stream South east of CW-7 triplet

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1155	2.1	181	3.20	1061	6.79	281	-	-

Color: Rust

Sheen: Y (N)

Volume Purged: _____

Odor: None

Turbidity: L (M) H VH

Duration: _____

Sample Collection

Date: 4/5/16

Time: 1150

Remarks: Very low volume IRON Floc & TURBIDITY pulled INTO
sample

Signature of Sampler: _____
JK

**Geological Field Services, Inc.
Surface Water Sampling Data**

Project ID: 07108 L&RR Landfill
 Location: North Smithfield RI
 Sampler: MACKAY
 Weather: Sun 35F

Surface Water ID: SW-10
 Date: 4-5-16
 Time: 1315

Comment: East MW-104 and landfill beyond beaver dam

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1315	2.1	181	4.90 102	-10.2	6.91	12.1	-	-

Color: CLEAR
 Odor: NONE

Sheen: Y N
 Turbidity: L M H VH

Volume Purged:
 Duration:

Sample Collection

Date: 4/5/16 Time: 1318

Remarks: _____

Signature of Sampler: R

Geological Field Services, Inc. Surface Water Sampling Data

Project ID: 07108 L&RR Landfill Surface Water ID: SW-16
 Location: North Smithfield RI Date: 4-5-16
 Sampler: MACKEN Time: 1325
 Weather: Sun 35

Comment: along northern bank of ponded water east of MW-104 couplet and landfill

Sampling Device: GEOTECH 2 PERISTALTIC

Time	Temp Celsius	S.C. umhos/cm	D.O. mg/L	ORP mV	pH su units	NTU	Drawdown feet	Purge gal.
1325	22.36	108.1	6.15	-5.2	6.59	21.0	-	-

Color: clear Sheen: Y N
 Odor: none Turbidity: L M H VH Volume Purged:
 Duration:

Sample Collection Date: 4/5/16 Time: 1325

Remarks: _____

Signature of Sampler: 



CHAIN OF CUSTODY

PAGE 1 OF 2

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@Woodardcurran.com

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

These samples have been Previously analyzed by Alpha

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab:

ALPHA Job #:

Report Information Data Deliverables

FAX EMAIL
 ADEX Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

	VOC 8260C	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDB DBCP 504.1															
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	MW-201	4/5/16	852	GW	RM
	MW-202		747	GW	RM
	MW-102A		1112	GW	RM
	MW-103A		1527	GW	RM
	MW-104A		1422	GW	RM
	CW-5B		952	GW	RM
	CW-7B		1242	GW	RM
	SW-5		1445	SW	RM
	SW-8		1150	SW	RM
	SW-10		1318	SW	RM

PLEASE ANSWER QUESTIONS ABOVE!

Container Type

Preservative

**IS YOUR PROJECT
 MA MCP or CT RCP?**

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/15/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



CHAIN OF CUSTODY

PAGE 2 OF 2

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-896-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@woodardcurran.com

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Only

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

These samples have been Previously analyzed by Alpha

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L. GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab:

ALPHA Job #:

Report Information Data Deliverables Billing Information

FAX EMAIL
 ADEx Add'l Deliverables

Same as Client Info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

	VOC 8260C	1-4 Dioxane 8270 SIM	1-4 Dioxane Low Level (HOLD)	EDB DBCP 504.1														
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
Filtration
 Done
 Not Needed
 Lab to do
Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	SW-16	4-5-16	1328	GW	RM
	LCH-3	↓	1342	GW	RM
	LCH-3 LCH-5		1030	GW	RM
	DUP-1		1112	GW	RM
	CW-5B MS		952	GW	RM
	CW-5B MSD		952	GW	RM
	EQUIPMENT BLANK		1355	GW	RM
	TRIP BLANK				

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 176		4/5/16 176

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.



CHAIN OF CUSTODY

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3268

Project Information

Project Name: L&RR

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Client Information

Client: Woodard & Curran

Address: 40 Shattuck Road Suite 40

Andover MA 01810

Phone: 866-702-6371

Fax: 978-557-7948

Email: solney@Woodardcurran.com

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab:	ALPHA Job #:
Report Information	Data Deliverables
<input type="checkbox"/> FAX	<input checked="" type="checkbox"/> EMAIL
<input checked="" type="checkbox"/> ADEx	<input checked="" type="checkbox"/> Add'l Deliverables
Billing Information	
<input checked="" type="checkbox"/> Same as Client info	PO #:
Regulatory Requirements/Report Limits	
State/Fed Program	Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Are MCP Analytical Methods Required?
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS														SAMPLE HANDLING	TOTAL BOTTLES
Dissolved As, Cd, Mn, Pb 6010C	T. Metals As, Cd, Mn, Pb, Fe 6010C	Dissolved As 6010C	Total As 6010C												
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Filtration <input checked="" type="checkbox"/> Done <input type="checkbox"/> Not Needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below)	2
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	MW-201	4-9-16	852	GW	RM
	MW-202		747	GW	RM
	MW-102A		1112	GW	RM
	MW-103A		1527	GW	RM
	MW-104A		1422	GW	RM
	CW-5B		952	GW	RM
	CW-7B		1242	GW	RM
	SW-5		1445	SW	RM
	SW-8		1150	SW	RM
	SW-10		1318	SW	RM

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

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CHAIN OF CUSTODY

PAGE 2 OF 2

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-699-9193 FAX: 508-822-3268

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Only

ALPHA Quote #:

Turn-Around Time

Fax: 978-557-7948 Standard Rush (ONLY IF PRE-APPROVED)

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierIPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab:

ALPHA Job #:

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

	Dissolved As, Cd, Mn, Pb 6010C	T. Metals As, Cd, Mn, Pb, Fe 6010C	Dissolved As 6010C	Total AS 6010C														
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	SW-16	4-5-16	1328	GW	RM
	LCH-3	↓	1342	GW	RM
	LCH-3 LCH-5		1630	GW	RM
	DUP-1		1112	GW	RM
	CW-5B MS		952	GW	RM
	CW-5B MSD		952	GW	RM
	EQUIPMENT BLANK		↓	1355	GW

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IS YOUR PROJECT
 MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1210		4/5/16 1716

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CHAIN OF CUSTODY

PAGE 1 OF 2

Project Information

Project Name: L&RR

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Olney

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

Due Date: 10 DAY TAT Time:

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Woodard & Curran

Address: 40 Shattuck Road Suite 40

Andover MA 01810

Phone: 866-702-6371

Fax: 978-557-7948

Email: solney@Woodardcurran.com

These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report, Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab

ALPHA Job #:

Report Information Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.4															
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
Filtration
 Done
 Not Needed
 Lab to do
Preservation
 Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

2

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	MW-201	4-5-16	852	GW	RM
	MW-202		747	GW	RM
	MW-102A		1112	GW	RM
	MW-103A		1527	GW	RM
	MW-104A		1422	GW	RM
	CW-5B		952	GW	RM
	CW-7B		1242	GW	RM
	SW-5		1445	SW	RM
	SW-8		1150	SW	RM
	SW-10		1318	SW	RM

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT
MA MCP or CT RCP?

FORM NO. 01-010
REV. 3-2013

Container Type
Preservative

P P P P - - - - -
I - D - - - - -

Relinquished By:

[Signature]

Date/Time

4/5/16 17:10

Received By:

[Signature]

Date/Time

4/5/16 17:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms



CHAIN OF CUSTODY

PAGE 2 OF 2

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Name: L&RR

Client Information

Client: Woodard & Curran
 Address: 40 Shattuck Road Suite 40
 Andover MA 01810
 Phone: 866-702-6371
 Fax: 978-557-7948
 Email: solney@Woodardcurran.com

Project Location: North Smithfield RI

Project #: 224263

Project Manager: Samantha Only

ALPHA Quote #:

Turn-Around Time

Standard Rush (ONLY IF PRE-APPROVED)

These samples have been previously analyzed by Alpha

Due Date: 10 DAY TAT Time:

Other Project Specific Requirements/Comments/Detection Limits:

Reporting limit for 1-4 Dioxane must be below 1.6 ug/L, GW samples must meet RI GA Groundwater Objectives, SW Samples must meet RIDEM AWQCG, PDF report and GIS/Key EDD required, modified Tier II/TierPlus report. Hold extra set of VOC Vials for MW-102A low level and analyze if TCE is J-Flagged below 5.0 ug/L.

Date Rec'd in Lab:

ALPHA Job #:

Report Information Data Deliverables

FAX EMAIL
 ADEX Add'l Deliverables

Billing Information

Same as Client info PD #

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes No Are MCP Analytical Methods Required?
 Yes No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

Parameter	Chloride 300.0	Ammonia 350.1	BOD SM5210B	COD 410.0														
Chloride 300.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ammonia 350.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BOD SM5210B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COD 410.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE HANDLING
 Filtration
 Done
 Not Needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
	SW-16	4-5-16	1328	GW	RM
	LCH-3	↓	1342	GW	RM
	LC1-5 LC1-5		1030	GW	RM
	DUP-1		1112	GW	RM
	CW-5B MS		952	GW	RM
	CW-5B MSD		952	GW	RM
	EQUIPMENT BLANK		1355	GW	RM

Container Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
	4/5/16 1710		4/5/16 1710

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

IS YOUR PROJECT MA MCP or CT RCP?
FORM NO: 01-0111 REV: 5-14-12

PLEASE ANSWER QUESTIONS ABOVE!

APPENDIX D: HISTORICAL GROUNDWATER DATA (2006 – 2015)

Appendix D:
Historical Groundwater Chemistry Data
 L&RR Superfund Site - North Smithfield, RI, 2006 - 2014

LABORATORY ANALYTES	MCL ⁽¹⁾	CW-5A		CW-5B				CW-5C		
		3/19/2012	3/24/2014	3/19/2012	6/19/2013	3/24/2014	4/6/2015	4/5/2016	3/19/2012	3/24/2014
Volatile Organic Compounds (µg/L)										
1,1,1,2-Tetrachloroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane		0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.5 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane			1.0 U			1.0 U	1 U	10 U		1.0 U
1,1,2-Trichloroethane	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U
1,1-Dichloroethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U
1,1-Dichloroethene	7.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
1,1-Dichloropropene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2,3-Trichloropropane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.2	5.0 U	0.011 U	5.0 U	1.0 U	0.011 U	0.0104 U	0.021 U	5.0 U	0.011 U
1,2-Dibromoethane	0.05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0104 U	0.021 U	1.0 U	1.0 U
1,2-Dichlorobenzene	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
1,2-Dichloropropane	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trichlorobenzene			1.0 U			1.0 U	1 U	1 U		1.0 U
1,3,5-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,3-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,3-Dichloropropane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,4-Dichlorobenzene	75	0.4 J	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
1,4-Dioxane		20.0 U	1.6 U	20.0 U	40 R	1.6 U	1.15	0.144 U	20.0 U	2 U
2,2-Dichloropropane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
2-Butanone		10 U	10.0 U	10 U	10.0 U	10 U	10 U	5 U	10 U	10.0 U
2-Chlorotoluene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
2-Hexanone			5.0 U			5.0 U	5 U	5 U		5.0 U
4-Chlorotoluene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
4-Isopropyltoluene			1.0 U			1.0 U	1 U	0.5 U		1.0 U
4-Methyl-2-pentanone		10 U	5.0 U	10 U	5.0 U	5.0 U	5 U	5 U	10 U	5.0 U
Acetone		50 U	10.0 U	50 U	10.0 U	10 U	10 U	2.6 J	50 U	10.0 U
Acrylonitrile			5.0 U			5.0 U	5 U	5 U		5.0 U
Benzene	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Bromobenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Bromochloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Bromodichloromethane		0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.5 U	1.0 U
Bromoform		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Bromomethane		2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1 U	1 U	2.0 U	1.0 U
Carbon disulfide			1.0 U			1.0 U	1 U	1 U		1.0 U
Carbon Tetrachloride	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Chlorobenzene	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Chloroethane		2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1 U	1 U	2.0 U	1.0 U
Chloroform		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U
Chloromethane		0.2 J	1.0 U	2.0 U	1.0 U	1.0 U	1 U	2 U	2.0 U	1.0 U
cis-1,2-Dichloroethene	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
cis-1,3-Dichloropropene			1.0 U			1.0 U	1 U	0.5 U		1.0 U
Dibromochloromethane		0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.2 U	1.0 U
Dibromomethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Dichlorodifluoromethane		1.0 U	10.0 U	0.39 J	1.1	1.0 U	0.986	2.6	1.0 U	1.0 U
Ethanol TIC			50.0 U			50 U	50 U			50.0 U
Ethylbenzene	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Ethyl Ether			1.0 U		1.0 U	1.0 U	1 U	1 U		1.0 U
Hexachlorobutadiene		0.4 U	1.0 U	0.4 U	1.0 U	1.0 U	1 U	0.5 U	0.4 U	1.0 U
Isopropyl Ether			1.0 U		1.0 U	1.0 U	1 U	1 U		1.0 U
Isopropylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
m,p-Xylenes	10,000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2 U	1 U	2.0 U	2.0 U
Methylene Chloride	5.0	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1 U	3 U	2.0 U	1.0 U
Methyl tert-butyl Ether			1.0 U			1.0 U	1 U	1 U		1.0 U
Naphthalene	100	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1 U	0.24 J	5.0 U	1.0 U
n-Butylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
n-Propylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
o-Xylene	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
sec-Butylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Styrene	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U		1.0 U	1.0 U
Tert-butylbenzene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Tert-butyl Alcohol		20.0 U	10 U	20.0 U	20 U	1.0 U	10 U	8.8 J		10 U
Tert-amyl methyl ether			1 U			1.0 U	1 U	1 U		1.0 U
Tert-butyl ethyl ether			1 U			1.0 U	1 U	1 U		1.0 U
Tetrachloroethene	5.0	1.0 U	3.7	1.3	1.3 J	1.15	1.17	1.9	1.0 U	1.0 U
Tetrahydrofuran		2.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5 U	2 U		5.0 U
Toluene	1,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U
trans-1,3-Dichloropropene			1.0 U			1.0 U	1 U	0.5 U		1.0 U
trans-1,4-Dichloro-2-butene			1.0 U			1.0 U	1 U	2.5 U		1.0 U
Trichloroethene	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U
Trichlorofluoromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U
Vinyl Chloride	2.0	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	1 U	0.2 U	0.5 U	1.0 U
DISSOLVED TAL METALS (µg/L)										
Arsenic Dissolved	10	10 U	1.0 U	10 U	10 U	1 U	0.11	5 U	10 U	1.0 U
Cadmium Dissolved	5.0	1.0 U	1.0 U	0.19 J	1 U	0.152	0.5 U	5 U	1.0 U	1.0 U
Lead Dissolved	15	5.0 U	0.09	5.0 U	5 U	0.092	0.153	10 U	5.0 U	0.025
Manganese Dissolved	-	10 U	11.3	2,900 J	2,500	2690	2,970	3140	10 U	
TOTAL TAL METALS (µg/L)										
Arsenic	10	10 U	1.0 U	10 U	10 U	1 U	1.31	5 U	10 U	1.0 U
Cadmium	5.0	1.0 U	1.0 U	0.33 U	1 U	0.152	0.189	5 U	1.0 U	1.0 U
Iron		550	326	71 J	260	32	66	44 J	48 J	6.51
Lead	15	3.9 U	0.608	2.6 U	5 U	0.303	0.602	3 J	1.5 U	0.023
Manganese		39 J	21.6	3,000 J	2,700	2620	3,050	3320	10 U	
INDICATOR PARAMETERS (mg/L)										
Ammonia		0.11	0.555	0.100 U	0.02 U	0.02 U	--	0.066 J	0.100 U	0.02
BOD			R 2.55 J+		R 2 U	1.51 J+	2 U	2 U	R 2.91 J+	
Chloride	250	2.4	2 U	1.6	11 J	2 U	1.83	1.86	1.8	2 U
COD		29	12.6 J+	22	10 U	10 U	10 U	20 U	20 U	10

Notes:

(1) Post-Closure Monitoring Reports prior to 2010 referenced a historic Target Compound List (TCL) for Volatile Compounds. The list of analyzed VOCs has been expanded to include the 8260C list. Only concentrations of 1,4-dioxane, tetrahydrofuran, and tert-butyl alcohol have been updated based on results between 2010 and 2014.

(2) MCL = Maximum Contaminant Level. Based on RIDEM Rules and Regulations for Groundwater Quality (March 2005).

(3) **Bolded** values = analyte detected above the MCL

(4) "U" = compound not detected above the laboratory reporting limit

(5) "R" = result was rejected during validation

(6) "J" = estimated result value

(7) "B" = analyte detected in sample and laboratory blank

(8) "J+" = result estimated, biased high

(9) Blank cells = compound not analyzed

**Appendix D:
Historical Groundwater Chemistry Data
L&RR Superfund Site - North Smithfield, RI, 2006 - 2014**

LABORATORY ANALYTES	MCL ⁽¹⁾	CW-7B					MW-102A				
		3/20/2012	6/19/2013	3/24/2014	4/6/2015	4/5/2016	3/20/2012	DUP 3/20/2012	6/19/2013	3/24/2014	DUP 3/24/2014
Volatil Organic Compounds (ug/L)											
1,1,1,2-Tetrachloroethane		1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane				1.0 U	1 U	10 U				1.0 U	1.0 U
1,1,2-Trichloroethane	5.0	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane		1.0 U	1.0 U	1.0 U	1 U	0.75 U	16	16	16	10.4	10.3
1,1-Dichloroethene	7.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	70	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.2	5.0 U	1.0 U	0.011 U	0.0105 U	0.021 U	5.0 U	5.0 U	1.0 U	0.0 U	0.0 U
1,2-Dibromoethane	0.05	1.0 U	1.0 U	1.0 U	0.0105 U	0.021 U	0.02 U	0.02 U	1.0 U	0.0 U	1.0 U
1,2-Dichlorobenzene	600	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	0.38 J	0.38 J	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	5.0	1.0 U	1.0 U	1.0 U	1 U	1 U	0.75 J	1.0 U	0.33 J	1.0 U	1.0 U
1,3,5-Trichlorobenzene				1.0 U	1 U	1 U				1.0 U	1.0 U
1,3,5-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	0.77 J	1.0 U	1.0 U
1,3-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	75	1.0 U	1.0 U	1.0 U	1 U	1 U	1.6	1.6	2.0	1.5	1.0
1,4-Dioxane		20.0 U	40 R	4	5.71	4.23	20.0 U	20.0 U	40 R	2 U	2 U
2,2-Dichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone		10 U	10.0 U	10.0 U	10 U	5 U	10 U	10 U	10.0 U	10.0 U	10.0 U
2-Chlorotoluene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone				5.0 U	5 U	5 U				5.0 U	5.0 U
4-Chlorotoluene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Isopropyltoluene				1.1	1 U	0.5 U				1.0 U	1.0 U
4-Methyl-2-pentanone		10 U	5.0 U	5.0 U	5 U	5 U	10 U	10 U	5.0 U	5.0 U	5.0 U
Acetone			10.0 U	10.0 U	10 U	2.5 J	50 U	50 U	10.0 U	10.0 U	10.0 U
Acrylonitrile				5.0 U	5 U	5 U				5.0 U	5.0 U
Benzene	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.7	1.7	2.1	1.5	1.5
Bromobenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U
Bromoforn		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane		2.0 U	1.0 U	1.0 U	1 U	1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide				1.0 U	1 U	1 U				1.0 U	1.0 U
Carbon Tetrachloride	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	100	1.0 U	1.0 U	1.0 U	1 U	0.5 U	3.6	3.5	6.0	4.2	3.8
Chloroethane		2.0 U	1.0 U	1.0 U	1 U	1 U	2.0	1.9 J	2.3	1.7	1.4
Chloroform		1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		2.0 U	1.0 U	1.0 U	1 U	2 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	70	0.2 J	1.0 U	1.0 U	1 U	0.5 U	55	56	48	32.4	31.3
cis-1,3-Dichloropropene				1.0 U	1 U	0.5 U				1.0 U	1.0 U
Dibromochloromethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U
Dibromomethane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane		1.0 U	1.0 U	1.0 U	1 U	2 U	4.4 J	4.7 J	3.8	2.1	1.8
Ethanol TIC				50.0 U	50 U					50.0 U	50.0 U
Ethylbenzene	700	1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl Ether			1.0 U	1.0 U	1 U	1 U			6.1	3.9	3.8
Hexachlorobutadiene		0.4 U	1.0 U	1.0 U	1 U	0.5 U	0.4 U	0.4 U	1.0 U	1.0 U	1.0 U
Isopropyl Ether			1.0 U	1.0 U	1 U	1 U			0.92	1.0 U	1.0 U
Isopropylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U	0.3 J	0.2 J	1.0 U	1.0 U	1.0 U
m,p-Xylenes	10,000	2.0 U	2.0 U	2.0 U	2 U	1 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methylene Chloride	5.0	2.0 U	1.0 U	1.0 U	1 U	3 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl Ether				1.0 U	1 U	1 U			0.25 J	0.2	1.0 U
Naphthalene	100	5.0 U	1.0 U	1.0 U	1 U	1 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
n-Butylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Propylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	10,000	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	100	1.0 U	1.0 U	1.0 U	1 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tert-butylbenzene		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tert-butyl Alcohol		20.0 U	32	8	11.3	5.9 J	20.0 U	20.0 U	20 U	10 U	10 U
Tert-amyl methyl ether				1 U	1 U	1 U				1 U	1 U
Tert-butyl ethyl ether				1 U	1 U	1 U				1 U	1 U
Tetrachloroethane	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	2.1	2.1	1.2	1.3	1.1
Tetrahydrofuran		2.0 U	3.4 J	5.0 U	5 U	1.6 J	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Toluene	1,000	1.0 U	1.0 U	1.0 U	1 U	0.75 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100	1.0 U	1.0 U	1.0 U	1 U	0.75 U	0.73 J	0.73 J	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene				1.0 U	1 U	0.5 U				1.0 U	1.0 U
trans-1,4-Dichloro-2-butene				1.0 U	1 U	2.5 U				1.0 U	1.0 U
Trichloroethene	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U	4.5	4.6	1.0 U	2.6	2.6
Trichlorofluoromethane		1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2.0	0.2 J	1.0 U	1.0 U	1 U	0.2 U	10	10	9.5	5.0	4.8
DISSOLVED TAL METALS (ug/L)											
Arsenic Dissolved	10	2.6 U	10	1.1	10.9	5 U	14	14	16	10.1	10.2
Cadmium Dissolved	5.0	1.0 U	1.0 U	1.0 U	0.5 U	5 U	1.0 U	1.0 U	1.0 U	0.155	0.184
Lead Dissolved	15	5.0 U	5.0 U	1.0 U	0.115	10 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Manganese Dissolved	-	1,700 J	9,700	1,770	1,360	1380	8,600 J	8,700 J	9,700	9,460	9,640
TOTAL TAL METALS (ug/L)											
Arsenic	10	10 U	10 U	2.52	3.44	5 U	12	10	14	10.1	10.3
Cadmium	5.0	1.0 U	1 U	0.129	0.5 U	5 U	1.0 U	1.0 U	1 U	0.468	0.547
Iron		3,600	260	2,690	3,140	4100	27,000	27,000	25,000	21,800	22,300
Lead	15	2.0 U	5 U	0.586	0.523	10 U	2.1 U	2.3	5 U	0.167	0.204
Manganese		1,700 J	2,700	1,920	1,700	1830	8,800 J	8,900 J	9,000	9,690	9,950
INDICATOR PARAMETERS (mg/L)											
Ammonia		0.100	0.012 U	0.02 U	0.045 J	0.033 J	0.61	0.58	0.31	0.546	0.55
BOD		R	2 U	2.27 J+	2 U	2 U	6.9	6.9	4.1 J	1.76 J+	1.76 J+
Chloride	250	2.9	2.3 J	2 U	2.62	2.5	2.3	2.3	2.0 J	2.4 J+	2.0 U
COD		20 U	10 U	11.6 J+	9.39 J+	8.1 J	20 U	20 U	13 U	11 J+	11 J+

Notes:

(1) Post-Closure Monitoring Reports prior to 2010 referenced a historic Target Compound List (TCL) for Volatile Compounds. The list of analyzed VOCs has been expanded to include the 8260C list. Only concentrations of 1,4-dioxane, tetrahydrofuran, and tert-butyl alcohol have been updated based on results between 2010 and 2014.

(2) MCL = Maximum Contaminant Level. Based on RIDEM Rules and Regulations for Groundwater Quality (March 2005).

(3) **Bolded** values = analyte detected above the MCL

(4) "U" = compound not detected above the laboratory reporting limit

(5) "R" = result was rejected during validation

(6) "J" = estimated result value

(7) "B" = analyte detected in sample and laboratory blank

(8) "J+" = result estimated, biased high

(9) Blank cells = compound not analyzed

Appendix D:
Historical Groundwater Chemistry Data
 L&RR Superfund Site - North Smithfield, RI, 2006 - 2014

LABORATORY ANALYTES	MCL ⁽¹⁾	MW-202				
		3/20/2012	6/19/2013	3/24/2014	4/6/2015	4/5/2016
		Volatiles Organic Compounds (µg/L)				
1,1,1,2-Tetrachloroethane		1.0 U	1.0 U	1.0 U	1 U	0.5 U
1,1,1-Trichloroethane	200	1.0 U	1.0 U	1.0 U	1 U	0.5 U
1,1,2,2-Tetrachloroethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane				1.0 U	1 U	10 U
1,1,2-Trichloroethane	5.0	1.0 U	1.0 U	1.0 U	1 U	0.75 U
1,1-Dichloroethane		1.0 U	1.0 U	1.0 U	1 U	0.75 U
1,1-Dichloroethene	7.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
1,1-Dichloropropene		1.0 U	1.0 U	1.0 U	1 U	1 U
1,2,3-Trichlorobenzene		1.0 U	1.0 UJ	1.0 U	1 U	1 U
1,2,3-Trichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U
1,2,4-Trichlorobenzene	70	1.0 U	1.0 UJ	1.0 U	1 U	1 U
1,2,4-Trimethylbenzene		1.0 U	1.0 U	1.0 U	1 U	1 U
1,2-Dibromo-3-chloropropane	0.2	5.0 U	1.0 U	0.011 U	0.0105 U	0.02 U
1,2-Dibromoethane	0.05	0.02 U	1.0 U	1.0 U	0.0105 U	0.02 U
1,2-Dichlorobenzene	600	1.0 U	1.0 U	1.0 U	1 U	1 U
1,2-Dichloroethane	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
1,2-Dichloropropane	5.0	1.0 U	1.0 U	1.0 U	1 U	1 U
1,3,5-Trichlorobenzene				1.0 U	1 U	1 U
1,3,5-Trimethylbenzene		1.0 U	1.0 UJ	1.0 U	1 U	1 U
1,3-Dichlorobenzene		1.0 U	1.0 U	1.0 U	1 U	1 U
1,3-Dichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U
1,4-Dichlorobenzene	75	1.0 U	1.0 U	1.0 U	1 U	1 U
1,4-Dioxane		20.0 U	40 R	2 U	1.6 U	0.142 U
2,2-Dichloropropane		1.0 U	1.0 U	1.0 U	1 U	1 U
2-Butanone		10 UJ	10.0 UJ	10.0 U	10 U	5 U
2-Chlorotoluene		1.0 U	1.0 U	1.0 U	1 U	1 U
2-Hexanone				5.0 U	5 U	5 U
4-Chlorotoluene		1.0 U	1.0 U	1.0 U	1 U	1 U
4-Isopropyltoluene				1.0 U	1 U	0.5 U
4-Methyl-2-pentanone		10 U	5.0 UJ	5.0 U	5 U	5 U
Acetone		50 U	10.0 UJ	10.0 U	10 U	1.8 J
Acrylonitrile				5.0 U	5 U	5 U
Benzene	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Bromobenzene		1.0 U	1.0 U	1.0 U	1 U	1 U
Bromochloromethane		1.0 U	1.0 U	1.0 U	1 U	1 U
Bromodichloromethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U
Bromoform		1.0 U	1.0 UJ	1.0 U	1 U	1 U
Bromomethane		2.0 U	1.0 UJ	1.0 U	1 U	1 U
Carbon disulfide				1.0 U	1 U	1 U
Carbon Tetrachloride	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Chlorobenzene	100	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Chloroethane		2.0 U	1.0 U	1.0 U	1 U	1 U
Chloroform		1.0 U	1.0 U	1.0 U	1 U	0.75 U
Chloromethane		2.0 U	1.0 U	1.0 U	1 U	2 U
cis-1,2-Dichloroethene	70	1.0 U	1.0 U	1.0 U	1 U	0.5 U
cis-1,3-Dichloropropene				1.0 U	1 U	0.5 U
Dibromochloromethane		0.5 U	1.0 U	1.0 U	1 U	0.5 U
Dibromomethane		1.0 U	1.0 U	1.0 U	1 U	1 U
Dichlorodifluoromethane		1.0 UJ	1.0 U	1.0 U	1 U	2 U
Ethanol TIC				50.0 U	50 U	
Ethylbenzene	700	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Ethyl Ether				1.0 U	1 U	1 U
Hexachlorobutadiene		0.4 U	1.0 UJ	1.0 U	1 U	0.5 U
Isopropyl Ether				1.0 U	1 U	1 U
Isopropylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U
m,p-Xylenes	10,000	2.0 U	2.0 U	2.0 U	2 U	1 U
Methylene Chloride	5.0	2.0 U	1.0 U	1.0 U	1 U	3 U
Methyl tert-butyl Ether				1.0 U	1 U	1 U
Naphthalene	100	5.0 U	1.0 UJ	1.0 U	1 U	1 U
n-Butylbenzene		1.0 U	1.0 UJ	1.0 U	1 U	0.5 U
n-Propylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U
o-Xylene	10,000	1.0 U	1.0 U	1.0 U	1 U	1 U
sec-Butylbenzene		1.0 U	1.0 U	1.0 U	1 U	0.5 U
Styrene	100	1.0 U	1.0 U	1.0 U	1 U	
Tert-butylbenzene		1.0 U	1.0 U	1.0 U	1 U	1 U
Tert-butyl Alcohol		20.0 U	20 U	10 U	10 U	10 U
Tert-amyl methyl ether				1 U	1 U	1 U
Tert-butyl ethyl ether				1 U	1 U	1 U
Tetrachloroethene	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Tetrahydrofuran		2.0 U	5.0 UJ	5.0 U	5 U	2 U
Toluene	1,000	1.0 U	1.0 U	1.0 U	1 U	0.75 U
trans-1,2-Dichloroethene	100	1.0 U	1.0 U	1.0 U	1 U	0.75 U
trans-1,3-Dichloropropene				1.0 U	1 U	0.5 U
trans-1,4-Dichloro-2-butene				1.0 U	1 U	2.5 U
Trichloroethene	5.0	1.0 U	1.0 U	1.0 U	1 U	0.5 U
Trichlorofluoromethane		1.0 U	1.0 U	1.0 U	1 U	1 U
Vinyl Chloride	2.0	0.5 U	1.0 U	1.0 U	1 U	0.2 U
DISSOLVED TAL METALS (ug/L)						
Arsenic Dissolved	10	1.9 UJ	10.0 U	1.0 U	1 U	5 U
Cadmium Dissolved	5.0	0.16 J	1.0 U	0.1	0.5 U	5 U
Lead Dissolved	15	5.0 UJ	5.0 U	1.0 U	1 U	10 U
Manganese Dissolved	-	74 J	65	43.2	64.3	66.1
TOTAL TAL METALS (ug/L)						
Arsenic	10	10 U	10.0 U	0.446	1 U	5 U
Cadmium	5.0	1.0 U	1.0 U	0.236	0.0934	1 J
Iron		480	240	2,340	202	54.1
Lead	15	1.7 UJ	5.0 U	1.45	0.195	10 U
Manganese		87 J	71	126	77.1	66.5
INDICATOR PARAMETERS (mg/L)						
Ammonia		0.1 U	0.020 U	0.02 U	-- --	0.075 U
BOD			R	2.0 U	34.4 J+	2 U
Chloride	250	34	24 J	2 UJ	81.8	85.5
COD		20 U	10 U	10.3 J+	10 U	10 J

Notes:

(1) Post-Closure Monitoring Reports prior to 2010 referenced a historic Target Compound List (TCL) for Volatile Compounds. The list of analyzed VOCs has been expanded to include the 8260C list. Only concentrations of 1,4-dioxane, tetrahydrofuran, and tert-butyl alcohol have been updated based on results between 2010 and 2014.

(2) MCL = Maximum Contaminant Level. Based on RIDEM Rules and Regulations for Groundwater Quality (March 2005).

(3) **Bolded** values = analyte detected above the MCL

(4) "U" = compound not detected above the laboratory reporting limit

(5) "R" = result was rejected during validation

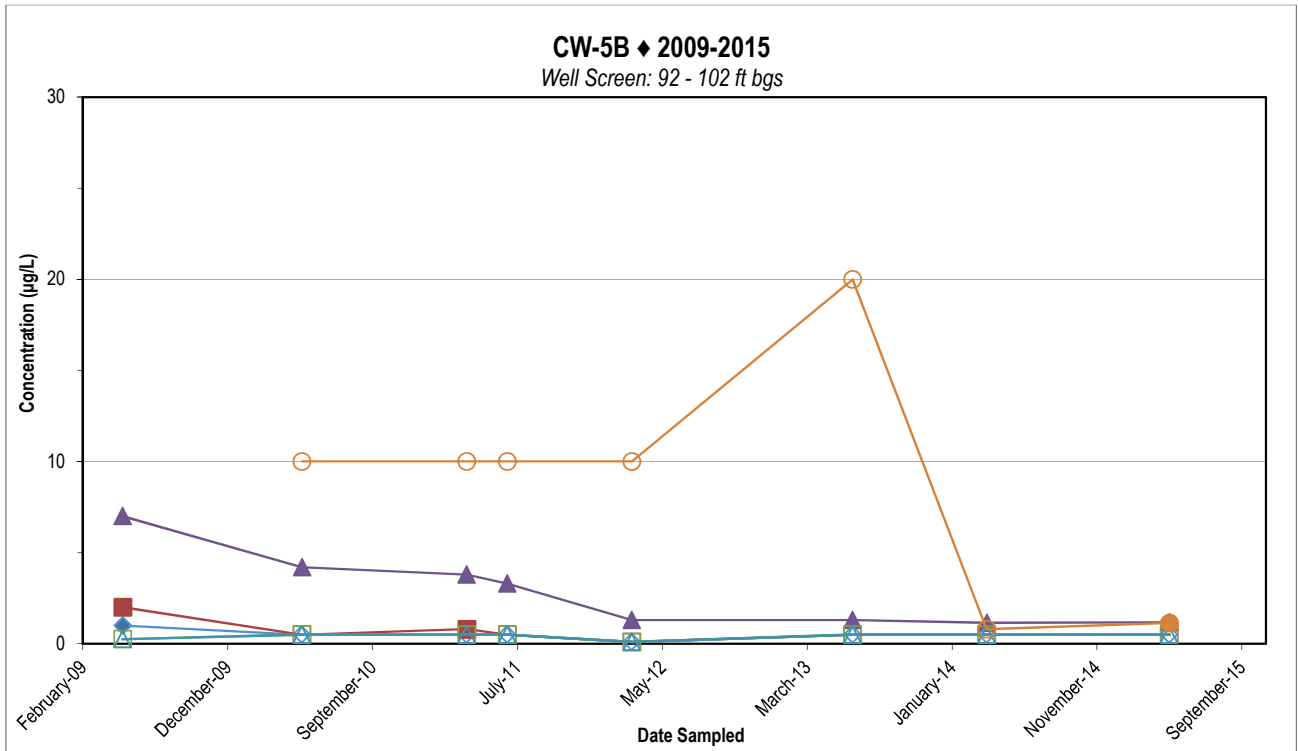
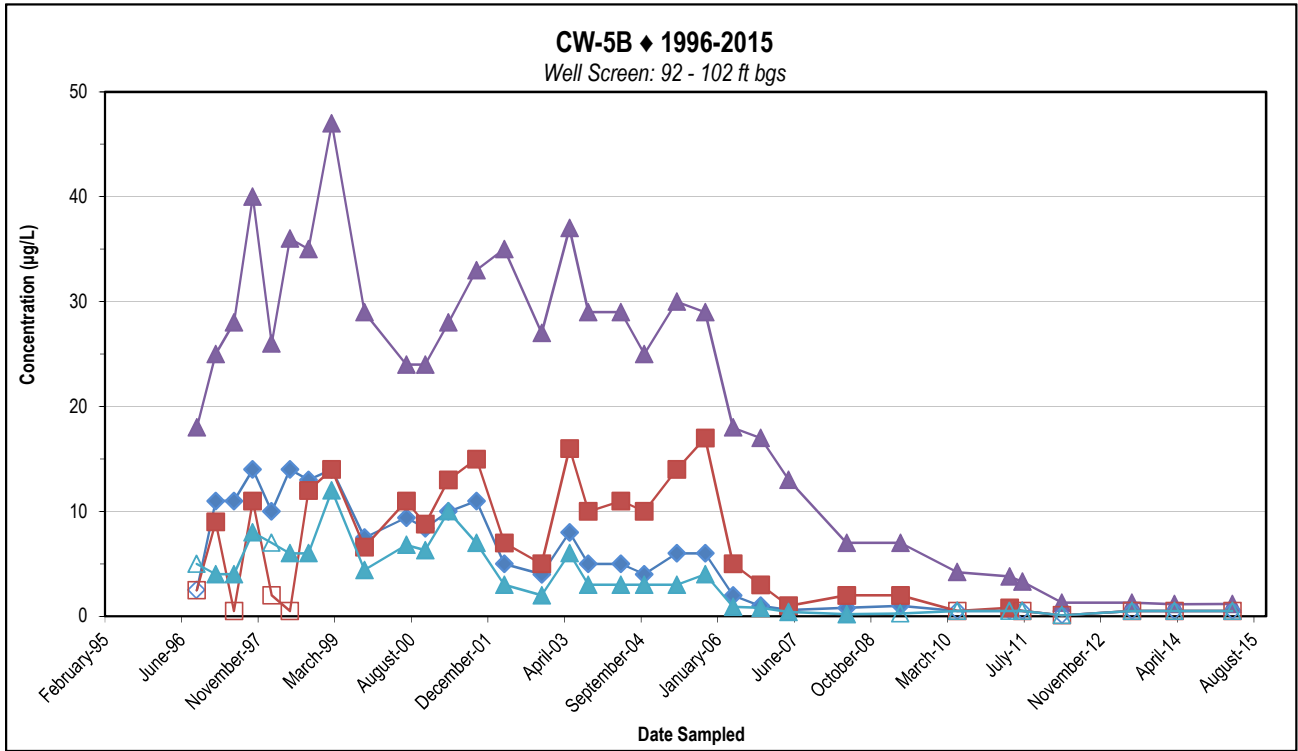
(6) "J" = estimated result value

(7) "B" = analyte detected in sample and laboratory blank

(8) "J+" = result estimated, biased high

(9) Blank cells = compound not analyzed

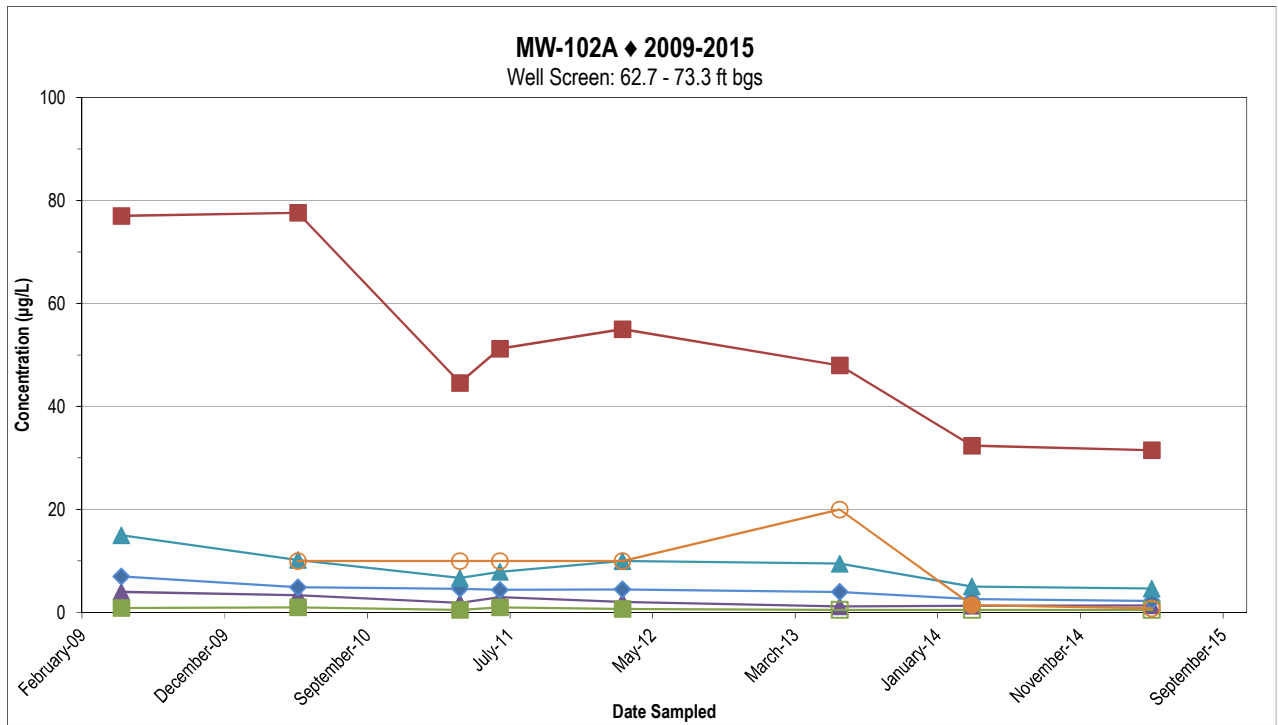
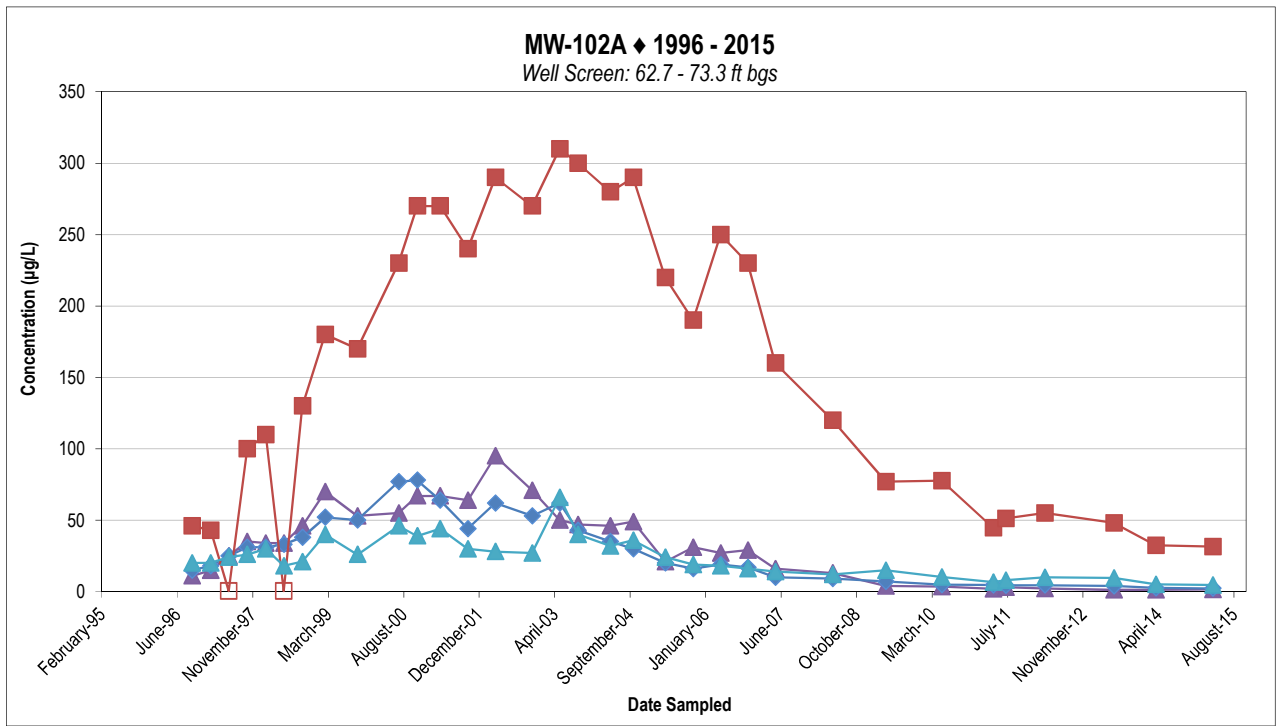
APPENDIX E: SELECT VOC CONCENTRATION OVER TIME (2009 – 2016)



▲ Tetrachloroethene
 ◆ Trichloroethene
 ■ cis-1,2-Dichloroethene
■ trans-1,2-Dichloroethene
 ▲ Vinyl Chloride
 ○ 1,4-Dioxane

NOTES

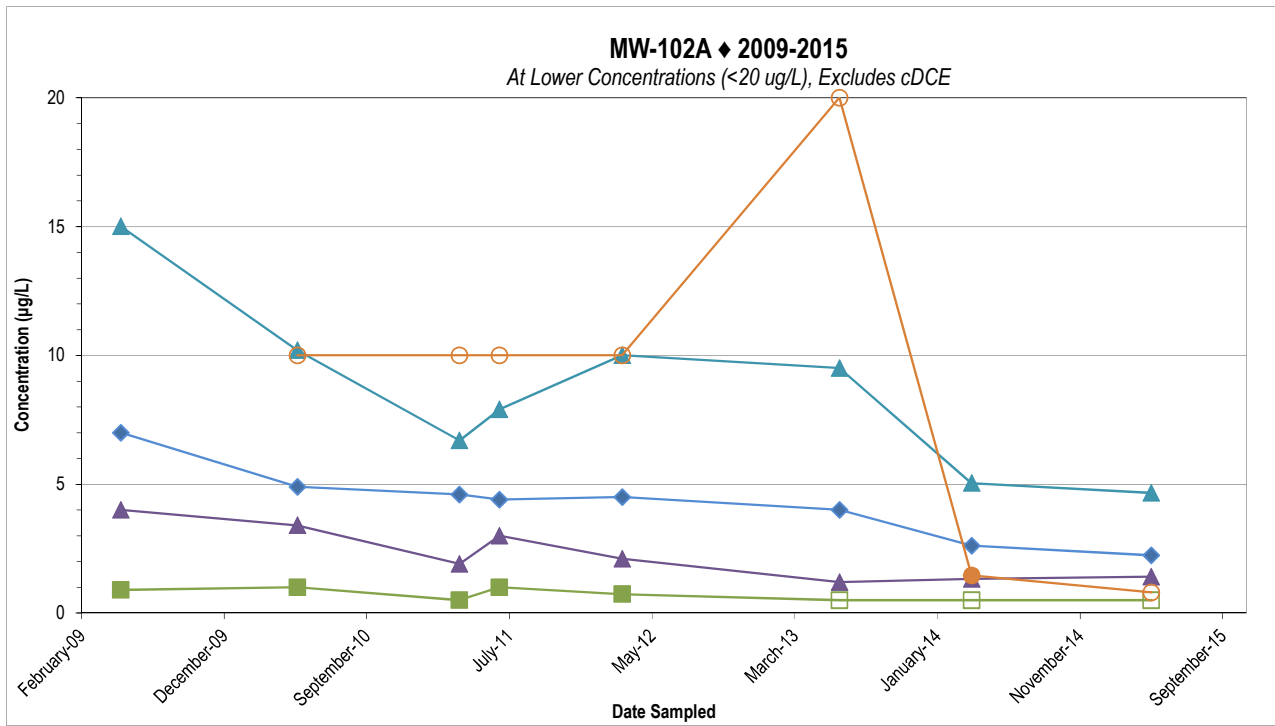
1. Detection limit for "non-detect" results (shown as hollow symbols) are posted as half of the laboratory's reporting limit.
2. Estimated values are posted "as-is" for comparison purposes.
3. Analysis of 1,4-dioxane began as part of the 2010 Annual Groundwater Monitoring event.



—▲— Tetrachloroethene
 —◆— Trichloroethene
 —■— cis-1,2-Dichloroethene
—■— trans-1,2-Dichloroethene
 —▲— Vinyl Chloride
 —○— 1,4-Dioxane

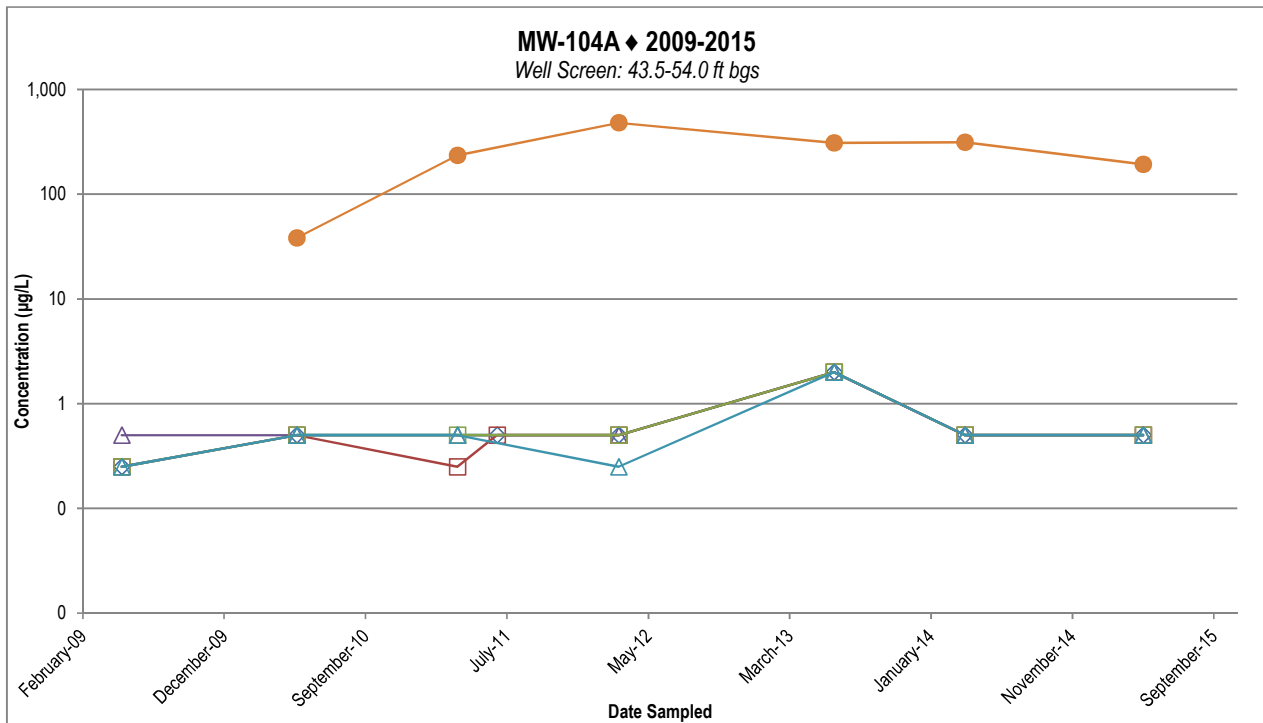
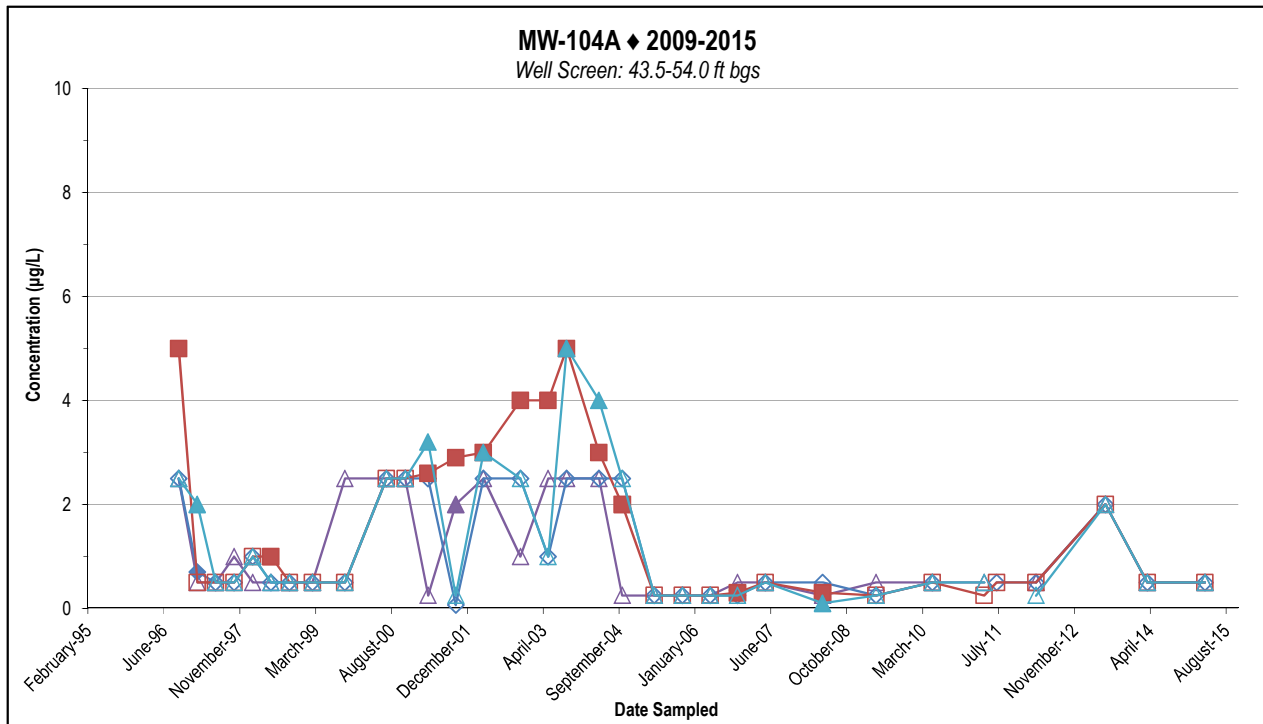
NOTES

1. Detection limit for "non-detect" results (shown as hollow symbols) are posted as half of the laboratory's reporting limit.
2. Estimated values are posted "as-is" for comparison purposes.
3. Analysis of 1,4-dioxane began as part of the 2010 Annual Groundwater Monitoring event.



NOTES

1. Detection limit for "non-detect" results (shown as hollow symbols) are posted as half of the laboratory's reporting limit.
2. Estimated values are posted "as-is" for comparison purposes.
3. Analysis of 1,4-dioxane began as part of the 2010 Annual Groundwater Monitoring event.



▲ Tetrachloroethene ▲ Trichloroethene ■ cis-1,2-Dichloroethene
■ trans-1,2-Dichloroethene ▲ Vinyl Chloride ● 1,4-Dioxane

NOTES

1. Detection limit for "non-detect" results (shown as hollow symbols) are posted as half of the laboratory's reporting limit.
2. Estimated values are posted "as-is" for comparison purposes.
3. Analysis of 1,4-dioxane began as part of the 2010 Annual Groundwater Monitoring event.

APPENDIX F: ANNUAL FLARE INLET LABORATORY ANALYTICAL RESULTS (NOVEMBER 2015)

December 2, 2015

Sean Driscoll
Woodard & Curran, Inc. - RI
33 Broad Street - One Weybosset Hill Floor
Providence, RI 02903

Project Location: L&RR. North Smithfield, RI
Client Job Number:
Project Number: 224263.50
Laboratory Work Order Number: 15K0766

Enclosed are results of analyses for samples received by the laboratory on November 16, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Meghan E. Kelley". The signature is written in a cursive style with a large, sweeping 'y' at the end.

Meghan E. Kelley
Project Manager

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Air Toxics by EPA Compendium Methods	9
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran, Inc. - RI
33 Broad Street - One Weybosset Hill Floor
Providence, RI 02903
ATTN: Sean Driscoll

REPORT DATE: 12/2/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224263.50

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15K0766

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

PROJECT LOCATION: L&RR. North Smithfield, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Influent	15K0766-01	Soil Gas		EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15**Qualifications:**

L-01

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

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene**

B136275-BS1

HexachlorobutadieneB136275-BS1

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.

Analyte & Samples(s) Qualified:**Benzyl chloride**

15K0766-01[Influent], B136275-BLK1, B136275-BS1

Methyl tert-Butyl Ether (MTBE)15K0766-01[Influent], B136275-BLK1, B136275-BS1

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.

Analyte & Samples(s) Qualified:**Benzyl chloride**

15K0766-01[Influent], B136275-BLK1, B136275-BS1

Isopropanol

15K0766-01[Influent], B136275-BLK1, B136275-BS1

Methyl tert-Butyl Ether (MTBE)15K0766-01[Influent], B136275-BLK1, B136275-BS1

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.

Analyte & Samples(s) Qualified:**Hexachlorobutadiene**

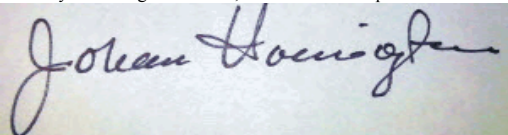
B136275-BS1

Propene

B136275-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.

A photograph of a handwritten signature in black ink on a light-colored background. The signature is written in a cursive style and reads "Johanna K. Harrington".

Johanna K. Harrington
Manager, Laboratory Reporting

ANALYTICAL RESULTS

Project Location: L&RR. North Smithfield, RI
 Date Received: 11/16/2015
Field Sample #: Influent
Sample ID: 15K0766-01
 Sample Matrix: Soil Gas
 Sampled: 11/12/2015 14:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1938
 Canister Size: 6 liter
 Flow Controller ID: 4619
 Sample Type: 4 hr

Work Order: 15K0766
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -9.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Acetone	3000	1200		7100	2900	600	11/19/15 21:31	TPH	
Benzene	2200	30		7200	96	600	11/19/15 21:31	TPH	
Benzyl chloride	ND	30	L-03, V-05	ND	160	600	11/19/15 21:31	TPH	
Bromodichloromethane	ND	30		ND	200	600	11/19/15 21:31	TPH	
Bromoform	ND	30		ND	310	600	11/19/15 21:31	TPH	
Bromomethane	ND	30		ND	120	600	11/19/15 21:31	TPH	
1,3-Butadiene	ND	30		ND	66	600	11/19/15 21:31	TPH	
2-Butanone (MEK)	3800	1200		11000	3500	600	11/19/15 21:31	TPH	
Carbon Disulfide	ND	300		ND	930	600	11/19/15 21:31	TPH	
Carbon Tetrachloride	ND	30		ND	190	600	11/19/15 21:31	TPH	
Chlorobenzene	550	30		2500	140	600	11/19/15 21:31	TPH	
Chloroethane	97	30		260	79	600	11/19/15 21:31	TPH	
Chloroform	ND	30		ND	150	600	11/19/15 21:31	TPH	
Chloromethane	ND	60		ND	120	600	11/19/15 21:31	TPH	
Cyclohexane	1500	30		5200	100	600	11/19/15 21:31	TPH	
Dibromochloromethane	ND	30		ND	260	600	11/19/15 21:31	TPH	
1,2-Dibromoethane (EDB)	ND	30		ND	230	600	11/19/15 21:31	TPH	
1,2-Dichlorobenzene	56	30		340	180	600	11/19/15 21:31	TPH	
1,3-Dichlorobenzene	ND	30		ND	180	600	11/19/15 21:31	TPH	
1,4-Dichlorobenzene	370	30		2200	180	600	11/19/15 21:31	TPH	
Dichlorodifluoromethane (Freon 12)	590	30		2900	150	600	11/19/15 21:31	TPH	
1,1-Dichloroethane	230	30		950	120	600	11/19/15 21:31	TPH	
1,2-Dichloroethane	ND	30		ND	120	600	11/19/15 21:31	TPH	
1,1-Dichloroethylene	ND	30		ND	120	600	11/19/15 21:31	TPH	
cis-1,2-Dichloroethylene	910	30		3600	120	600	11/19/15 21:31	TPH	
trans-1,2-Dichloroethylene	ND	30		ND	120	600	11/19/15 21:31	TPH	
1,2-Dichloropropane	ND	30		ND	140	600	11/19/15 21:31	TPH	
cis-1,3-Dichloropropene	ND	30		ND	140	600	11/19/15 21:31	TPH	
trans-1,3-Dichloropropene	ND	30		ND	140	600	11/19/15 21:31	TPH	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	100	30		700	210	600	11/19/15 21:31	TPH	
1,4-Dioxane	340	300		1200	1100	600	11/19/15 21:31	TPH	
Ethanol	11000	1200		20000	2300	600	11/19/15 21:31	TPH	
Ethyl Acetate	620	30		2200	110	600	11/19/15 21:31	TPH	
Ethylbenzene	4100	30		18000	130	600	11/19/15 21:31	TPH	
4-Ethyltoluene	570	30		2800	150	600	11/19/15 21:31	TPH	
Heptane	1500	30		6200	120	600	11/19/15 21:31	TPH	
Hexachlorobutadiene	ND	30		ND	320	600	11/19/15 21:31	TPH	

ANALYTICAL RESULTS

Project Location: L&RR. North Smithfield, RI
 Date Received: 11/16/2015
Field Sample #: Influent
Sample ID: 15K0766-01
 Sample Matrix: Soil Gas
 Sampled: 11/12/2015 14:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1938
 Canister Size: 6 liter
 Flow Controller ID: 4619
 Sample Type: 4 hr

Work Order: 15K0766
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -9.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analized		
Hexane	1600	1200		5800	4200	600	11/19/15 21:31	TPH	
2-Hexanone (MBK)	ND	30		ND	120	600	11/19/15 21:31	TPH	
Isopropanol	1800	1200	V-05	4300	2900	600	11/19/15 21:31	TPH	
Methyl tert-Butyl Ether (MTBE)	ND	30	L-03, V-05	ND	110	600	11/19/15 21:31	TPH	
Methylene Chloride	470	300		1600	1000	600	11/19/15 21:31	TPH	
4-Methyl-2-pentanone (MIBK)	ND	30		ND	120	600	11/19/15 21:31	TPH	
Naphthalene	140	30		740	160	600	11/19/15 21:31	TPH	
Propene	9400	1200		16000	2100	600	11/19/15 21:31	TPH	
Styrene	160	30		670	130	600	11/19/15 21:31	TPH	
1,1,2,2-Tetrachloroethane	ND	30		ND	210	600	11/19/15 21:31	TPH	
Tetrachloroethylene	1000	30		7100	200	600	11/19/15 21:31	TPH	
Tetrahydrofuran	940	30		2800	88	600	11/19/15 21:31	TPH	
Toluene	6000	30		23000	110	600	11/19/15 21:31	TPH	
1,2,4-Trichlorobenzene	ND	30		ND	220	600	11/19/15 21:31	TPH	
1,1,1-Trichloroethane	ND	30		ND	160	600	11/19/15 21:31	TPH	
1,1,2-Trichloroethane	ND	30		ND	160	600	11/19/15 21:31	TPH	
Trichloroethylene	120	30		670	160	600	11/19/15 21:31	TPH	
Trichlorofluoromethane (Freon 11)	ND	120		ND	670	600	11/19/15 21:31	TPH	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	120		ND	920	600	11/19/15 21:31	TPH	
1,2,4-Trimethylbenzene	1500	30		7300	150	600	11/19/15 21:31	TPH	
1,3,5-Trimethylbenzene	720	30		3600	150	600	11/19/15 21:31	TPH	
Vinyl Acetate	ND	600		ND	2100	600	11/19/15 21:31	TPH	
Vinyl Chloride	830	30		2100	77	600	11/19/15 21:31	TPH	
m&p-Xylene	4600	60		20000	260	600	11/19/15 21:31	TPH	
o-Xylene	4100	30		18000	130	600	11/19/15 21:31	TPH	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	114	70-130	11/19/15 21:31

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Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15K0766-01 [Influent]	B136275	1.5	200	5	1000	400	200	11/19/15

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	
Batch B136275 - TO-15 Prep										
Blank (B136275-BLK1)										
						Prepared & Analyzed: 11/19/15				
Acetone	ND	1.4								
Benzene	ND	0.035								
Benzyl chloride	ND	0.035								L-03, V-05
Bromodichloromethane	ND	0.035								
Bromoform	ND	0.035								
Bromomethane	ND	0.035								
1,3-Butadiene	ND	0.035								
2-Butanone (MEK)	ND	1.4								
Carbon Disulfide	ND	0.35								
Carbon Tetrachloride	ND	0.035								
Chlorobenzene	ND	0.035								
Chloroethane	ND	0.035								
Chloroform	ND	0.035								
Chloromethane	ND	0.070								
Cyclohexane	ND	0.035								
Dibromochloromethane	ND	0.035								
1,2-Dibromoethane (EDB)	ND	0.035								
1,2-Dichlorobenzene	ND	0.035								
1,3-Dichlorobenzene	ND	0.035								
1,4-Dichlorobenzene	ND	0.035								
Dichlorodifluoromethane (Freon 12)	ND	0.035								
1,1-Dichloroethane	ND	0.035								
1,2-Dichloroethane	ND	0.035								
1,1-Dichloroethylene	ND	0.035								
cis-1,2-Dichloroethylene	ND	0.035								
trans-1,2-Dichloroethylene	ND	0.035								
1,2-Dichloropropane	ND	0.035								
cis-1,3-Dichloropropene	ND	0.035								
trans-1,3-Dichloropropene	ND	0.035								
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035								
1,4-Dioxane	ND	0.35								
Ethanol	ND	1.4								
Ethyl Acetate	ND	0.035								
Ethylbenzene	ND	0.035								
4-Ethyltoluene	ND	0.035								
Heptane	ND	0.035								
Hexachlorobutadiene	ND	0.035								
Hexane	ND	1.4								
2-Hexanone (MBK)	ND	0.035								
Isopropanol	ND	1.4								V-05
Methyl tert-Butyl Ether (MTBE)	ND	0.035								L-03, V-05
Methylene Chloride	ND	0.35								
4-Methyl-2-pentanone (MIBK)	ND	0.035								
Naphthalene	ND	0.035								
Propene	ND	1.4								
Styrene	ND	0.035								

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B136275 - TO-15 Prep											
Blank (B136275-BLK1)						Prepared & Analyzed: 11/19/15					
1,1,2,2-Tetrachloroethane	ND	0.035									
Tetrachloroethylene	ND	0.035									
Tetrahydrofuran	ND	0.035									
Toluene	ND	0.035									
1,2,4-Trichlorobenzene	ND	0.035									
1,1,1-Trichloroethane	ND	0.035									
1,1,2-Trichloroethane	ND	0.035									
Trichloroethylene	ND	0.035									
Trichlorofluoromethane (Freon 11)	ND	0.14									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14									
1,2,4-Trimethylbenzene	ND	0.035									
1,3,5-Trimethylbenzene	ND	0.035									
Vinyl Acetate	ND	0.70									
Vinyl Chloride	ND	0.035									
m&p-Xylene	ND	0.070									
o-Xylene	ND	0.035									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>9.12</i>				<i>8.00</i>		<i>114</i>	<i>70-130</i>			
LCS (B136275-BS1)						Prepared & Analyzed: 11/19/15					
Acetone	4.37				5.00		87.5	70-130			
Benzene	4.82				5.00		96.4	70-130			
Benzyl chloride	3.34				5.00		66.8 *	70-130			L-03, V-05
Bromodichloromethane	5.00				5.00		99.9	70-130			
Bromoform	6.04				5.00		121	70-130			
Bromomethane	4.78				5.00		95.6	70-130			
1,3-Butadiene	4.32				5.00		86.3	70-130			
2-Butanone (MEK)	5.38				5.00		108	70-130			
Carbon Disulfide	4.94				5.00		98.8	70-130			
Carbon Tetrachloride	4.98				5.00		99.7	70-130			
Chlorobenzene	5.30				5.00		106	70-130			
Chloroethane	4.46				5.00		89.2	70-130			
Chloroform	5.58				5.00		112	70-130			
Chloromethane	4.54				5.00		90.7	70-130			
Cyclohexane	5.56				5.00		111	70-130			
Dibromochloromethane	5.56				5.00		111	70-130			
1,2-Dibromoethane (EDB)	5.29				5.00		106	70-130			
1,2-Dichlorobenzene	6.17				5.00		123	70-130			
1,3-Dichlorobenzene	6.19				5.00		124	70-130			
1,4-Dichlorobenzene	6.27				5.00		125	70-130			
Dichlorodifluoromethane (Freon 12)	6.19				5.00		124	70-130			
1,1-Dichloroethane	5.15				5.00		103	70-130			
1,2-Dichloroethane	5.46				5.00		109	70-130			
1,1-Dichloroethylene	5.46				5.00		109	70-130			
cis-1,2-Dichloroethylene	5.24				5.00		105	70-130			
trans-1,2-Dichloroethylene	4.76				5.00		95.2	70-130			
1,2-Dichloropropane	4.36				5.00		87.1	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B136275 - TO-15 Prep											
LCS (B136275-BS1)											
Prepared & Analyzed: 11/19/15											
cis-1,3-Dichloropropene	4.31				5.00		86.2	70-130			
trans-1,3-Dichloropropene	3.99				5.00		79.7	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.97				5.00		99.5	70-130			
1,4-Dioxane	5.62				5.00		112	70-130			
Ethanol	4.67				5.00		93.4	70-130			
Ethyl Acetate	4.95				5.00		99.0	70-130			
Ethylbenzene	5.60				5.00		112	70-130			
4-Ethyltoluene	5.28				5.00		106	70-130			
Heptane	5.03				5.00		101	70-130			
Hexachlorobutadiene	7.32				5.00		146 *	70-130			L-01, V-06
Hexane	3.57				5.00		71.5	70-130			
2-Hexanone (MBK)	5.12				5.00		102	70-130			
Isopropanol	3.56				5.00		71.1	70-130			V-05
Methyl tert-Butyl Ether (MTBE)	2.60				5.00		51.9 *	70-130			V-05, L-03
Methylene Chloride	5.51				5.00		110	70-130			
4-Methyl-2-pentanone (MIBK)	4.85				5.00		97.1	70-130			
Naphthalene	5.32				5.00		106	70-130			
Propene	6.23				5.00		125	70-130			V-06
Styrene	5.65				5.00		113	70-130			
1,1,2,2-Tetrachloroethane	5.24				5.00		105	70-130			
Tetrachloroethylene	5.39				5.00		108	70-130			
Tetrahydrofuran	5.86				5.00		117	70-130			
Toluene	5.28				5.00		106	70-130			
1,2,4-Trichlorobenzene	6.93				5.00		139 *	70-130			L-01
1,1,1-Trichloroethane	4.40				5.00		88.0	70-130			
1,1,2-Trichloroethane	5.22				5.00		104	70-130			
Trichloroethylene	4.91				5.00		98.2	70-130			
Trichlorofluoromethane (Freon 11)	5.52				5.00		110	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	6.22				5.00		124	70-130			
1,2,4-Trimethylbenzene	5.22				5.00		104	70-130			
1,3,5-Trimethylbenzene	5.10				5.00		102	70-130			
Vinyl Acetate	4.68				5.00		93.7	70-130			
Vinyl Chloride	4.59				5.00		91.8	70-130			
m&p-Xylene	10.4				10.0		104	70-130			
o-Xylene	5.36				5.00		107	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>9.30</i>				<i>8.00</i>		<i>116</i>	<i>70-130</i>			

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

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- L-01 Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
 - 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.
 - 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-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.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Acetone	AIHA,NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	AIHA,NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	AIHA,NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA,ME
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,VA,ME
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Acetate	AIHA,FL,NJ,NY,VA,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME

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	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016



15KOTWLL
 Phone: 413-525-2332
 Fax: 413-525-6405
 Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
 East Longmeadow, MA 01028

Company Name: Woodard & Curran
 Address: 33 Broad St. Providence, RI
 Phone: 800 985 7897
 Project Name: LIRR
 Project Location: North Smithfield RI
 Project Number: 224263.50
 Project Manager: SEAN DRISCOLL
 Con-Test Bid:
 Invoice Recipient:
 Sampled By: SEAN DRISCOLL

Requested Turnaround Time
 7-Day 10-Day
 Other:
Rush-Approval Required
 1-Day 3-Day
 2-Day 4-Day
Data Delivery
 Format: PDF EXCEL
 Other:
 Enhanced Data Package Required:
 Email To: Sdriscoll@woodardcurran.com
 Fax To #:

ANALYSIS REQUESTED

" Hg	Initial Pressure	Final Pressure	Lab Receipt Pressure	Please fill out completely, sign, date and retain the yellow copy for your records	
				Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply	
				For summa canister and flow controller information please refer to Con-Test's Air Media Agreement	
Summa Can ID	Flow Controller ID				

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	T-0-15		28	9	9	138	4619
		Beginning Date/Time	Ending Date/Time					Total Minutes Sampled	m ³ /min L/min					
01	INFLUENT	11/12/15 10:45	11/12/15 14:45	240	0.025	SL	6	X						

Comments:
 INITIAL TVOC-PID = 15.2 ppm
 Final TVOC-PID = 14.7 ppm Landfill GAS

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
 SG = SOIL GAS
 IA = INDOOR AIR
 AMB = AMBIENT
 SS = SUB SLAB
 D = DUP
 BL = BLANK
 O = Other

Relinquished by: (signature)	Date/Time:	Detection Limit Requirements		Special Requirements	
		MA	CT	MA MCP Required	CT RCP Required
<i>[Signature]</i>				<input type="checkbox"/>	
Received by: (signature)	Date/Time:			<input type="checkbox"/>	MA MCP Required
<i>[Signature]</i>	11/16 11:15			<input type="checkbox"/>	CT RCP Required
Relinquished by: (signature)	Date/Time:			<input type="checkbox"/>	Enhanced Data Package Required
<i>[Signature]</i>	11/16 5:20			<input type="checkbox"/>	Enhanced Data Package Required
Received by: (signature)	Date/Time:	Other			
<i>[Signature]</i>	11/16/15 17:00				
Relinquished by: (signature)	Date/Time:	TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.			
Received by: (signature)	Date/Time:				

NEIAC and AIAA-LAP, LLC Accredited

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



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

AIR Only Receipt Checklist

CLIENT NAME: Woodward & Curran RECEIVED BY: RLF DATE: 11/16/15

- 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? none

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	1	CEL
Tedlar Bags		
TO-17 Tubes		
Regulators	1	4 hr
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: 1938 4619

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

Question	Answer (True/False)	Comment
	T/F/NA	
1) The coolers'/boxes' 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.	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) Samples are received within Holding Time.	T	
10) Sample containers have legible labels.	T	
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T	
12) Sample collection date/times are provided.	T	
13) Appropriate sample/media containers are used.	T	
14) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
15) Trip blanks provided if applicable.	T	

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

Date/Time:
 Date/Time:

DLF 11/16/15 1720

nt/female set: 1
 tubing: 2ft



woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS