

From: Frink, Helen [<mailto:hfrink@keene.edu>]
Sent: Wednesday, April 12, 2017 2:39 PM
To: Freise, Clark; Monroe, Pamela
Subject: Re: Eversource Seacoast Reliability Project in Newington

Dear Mr. Freise and Ms. Monroe,

I've attached here the report by GEI consultants to Eversource detailing the levels of PFOA and PFOS found in our wetlands and brook. I understand that this will be posted to the SEC website.

Thank you for your assistance with this process.

Helen Frink

From: Freise, Clark
Sent: Wednesday, April 12, 2017 1:40 PM
To: 'Frink, Helen'; Monroe, Pamela
Subject: RE: Eversource Seacoast Reliability Project in Newington

Ms. Frink,

As this is a matter before, the proper party to address correspondence to is Pam Monroe. She is on this email and will properly receive and post this communication. However, given the levels of PFCs you say have been detected, I would like to request a copy of the GEI water testing report you have referenced.

Best regards,
Clark

From: Frink, Helen [<mailto:hfrink@keene.edu>]
Sent: Tuesday, April 11, 2017 3:13 PM
To: clark.friese@des.nh.gov
Subject: Eversource Seacoast Reliability Project in Newington

Dear Acting Commissioner Freise:

The Eversource Seacoast Reliability Project amended application now before the Site Evaluation Committee will have disastrous environmental impacts in Newington. The amendment proposes an underground line through the Darius Frink Farm of which I am a co-owner, and the Hannah Lane residential subdivision. To the west of the Frink farm, the line will run overhead through the Pickering land.

As you are probably well aware, wetlands on the Frink Farm and land to our east and west have been contaminated by PFOA and PFOS moving down plume from the Superfund site on Pease. Eversource received water test results from GEI Consultants, Inc.(400 Unicorn Park Drive, Woburn, MA 01801, 781.721.4000) on December 15, 2016, well before their amended

application was filed. Page 4 of the GEI report summarizes surface water test results (SW1) conducted in our wetlands:

PFOA and PFOS were detected in sample SW1 from Knight's Brook at 0.842 µg/L and 2.91 µg/L, respectively. The total PFOA/PFOS concentration was 3.752 µg/L. Both the individual and total concentrations exceed the NH AGQS of 0.07 µg/L.

These data show concentrations of PFOA at 12 times the USEPA and New Hampshire Ambient Groundwater Quality Standards limit. PFOS was measured at 41.57 times the USEPA and New Hampshire Ambient Groundwater Quality Standards limits.

Construction of the underground transmission line will necessitate excavating for a farmland trench 8 feet deep through Knight's Brook and adjacent wetlands on the Frink Farm. The amended application does not clarify what measures will be taken to prevent the further dispersal of these toxic substances into agricultural soils and wetlands. Our 2005 farmland conservation easement was funded by the federal Farm and Ranchlands Protection Program (now called Agricultural Lands easement Program) because of the high agricultural value of our soils. Our farm produces baled hay and grass-fed beef from Belted Galloway cattle, a heritage breed. Protection of the seacoast's scarce agricultural resources should be weighed against the alleged advantages of the Seacoast Reliability Project.

The Eversource amendment describes Newington's agreement to purchase a new conservation easement on 10 acres downstream from the Frink Farm, a purchase partially funded by Eversource's Aquatic Resources Mitigation payment. These newly conserved wetlands will also be impacted by the further spread of PFOA and PFOS during construction.

Eversource's application contains only obscure references to the presence of toxic contaminants in our land. For example, Appendix 14 (a) pp. 2-3 Water Quality Certification Application does mention that SRP "is conducting its own testing for PFOA and PFOS in the SRP corridor at the Frink farm, where burial of the cable will require dewatering and soil management." However, there is NO mention the GEI report which Eversource received 4 months before filing their amendment. Furthermore, Eversource fails to specify how excavating the 8-foot farmland trench will be handled to avoid dispersing PFOA and PFOS further into our soils. Eversource alludes only to consulting with NHDES and Pease "to determine the appropriate soil and water management strategies" (page 4). Are there safe management strategies for a project of this type?

As you consider the Eversource Seacoast Reliability Project, please weigh the risk of permanent damage to Newington's farmland, water resources, and wetlands, as well as the impact this project could have on the Piscataqua and the entire Great Bay watershed.

I would be glad to e-mail you the complete GEI water testing report, or to discuss these issues with you further.

Helen Frink

Darius Frink Farm

Consulting December 15, 2016
Engineers and Project 1607530
Scientists
VIA EMAIL: Kurt.Nelson@eversource.com

Mr. Kurt. I Nelson
Eversource Energy
13 Legends Way
Hookset, NH 03106

Dear Mr. Nelson:

Re: **Soil, Groundwater, and Surface Water Investigation**
Darius Frink Farm
Newington, New Hampshire

GEI Consultants, Inc. prepared this letter report to summarize the results of our soil, groundwater, and surface water investigation within Eversource Energy's right-of-way corridor on the Darius Frink Farm in Newington, New Hampshire (the Property; Fig. 1). The Property consists primarily of farm land and wetlands. The investigation was performed to support Eversource's proposed Seacoast Reliability Project (SRP).

The Property is located within the downgradient contaminant plume of Site 8 located at Pease Air Force Base (Pease; Fig. 1). Therefore, for the proposed SRP, soil and groundwater management must be performed in accordance with State of New Hampshire Department of Environmental Services (NHDES) regulatory requirements. NHDES does not provide specific guidance for utility-related work; therefore, the process for investigation, cleanup, and reporting for this project was performed in general accordance with *The New Hampshire Code of Administrative Rules, Chapter Env-Or 600 - Contaminated Site Management* (Env-Or-600). The results of this investigation will be used to prepare a soil and groundwater management plan for work on the Property.

Our scope of work included the following tasks:

- Reviewing project information provided by Eversource and available Pease Site 8 reports.
- Advancing three borings on the Property which were completed as monitoring wells.
- Collecting soil, groundwater, and surface water samples for laboratory analytical testing.
- Performing hydraulic conductivity testing.

1. Background

1.1. Site Description

Eversource proposes to pass the SRP through an existing overhead transmission line corridor on the Frink Farm, located to the north of Pease (Fig. 1) in Newington, NH. Frink Farm consists of several buildings, a cultivated vegetable garden, a cow pasture, and an uncultivated field. Work for the proposed SRP will be performed within the uncultivated field, which is currently maintained for

haymaking operations (the Project Area; Fig. 2). The Project Area is approximately 1,600 feet long and begins on the western edge of the property and ends at Nimble Hill Road (Fig. 2).

1.2. Regulatory History

There have been no releases of oil or hazardous material (OHM) reported at the Property, which has been owned by the Frink family for five generations. However, the Property and Project Area are located downgradient of the Pease Site 8 contaminated groundwater plume which contains perfluorinated compounds (PFCs) associated with former firefighting activities; therefore, there is potential to encounter contaminated soil and groundwater during construction activities. PFCs have also been detected in surface water in Knight's Brook along the eastern edge of the Project Area and within the proposed SRP alignment.

In May 2016, NHDES enacted Emergency Rule 05-31-16 under Env-Or-600 which includes the addition of PFCs to the New Hampshire state ambient groundwater quality standards (AGQS). The AGQS for perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and the combined concentration of PFOA and PFOS is 0.07 µg/L. Env-Or-600 does not currently include soil standards or regulations for PFOA or PFOS.

1.3. Chemicals of Concern

PFOA and PFOS are the primary contaminants of concern in the Project Area. PFOA and PFOS are PFCs and part of a group of man-made chemicals that have been used to manufacture a large range of products including nonstick cookware, carpets, some food packaging, paints, cleaning products, and firefighting foams. PFCs are very persistent in the environment, and are known to travel long distances in groundwater.

PFOA and PFOS contamination has been previously identified downgradient of Pease Site 8 in surface water in local streams (e.g., Knights Brook and Pickering Brook; Fig 1.). The presence of PFOA and PFOS downgradient of Site 8 has been associated with the historic use of aqueous film forming foam (AFFF) at Site 8 at Pease. Around 1970, the US Air Force began using aqueous AFFF for extinguishing petroleum fires during firefighting training activities at the current Site 8 location. Site 8 was used to simulate aircraft crash fires in a pit area using jet fuel, mixed waste oils, and solvents. The mixture was burned before being extinguished with AFFF. Excess fuels and AFFF were discharged from the burn pit into a drainage ditch at the northern end of Site 8.

Prior to this investigation, there was limited information on the presence of PFOA or PFOS at the Property or in the Project Area. The results of our investigation are summarized below.

2. Site Characterization

In August and September 2016, GEI performed a subsurface investigation to characterize soil and groundwater within the Project Area to assess conditions that may be encountered during construction activities. GEI performed soil borings, sampled soil, installed monitoring wells, sampled groundwater, and performed hydraulic conductivity tests. During sampling, we took special precautions to prevent potential PFC cross-contamination from outside sources including:

- No use of Teflon®-containing materials (i.e., Teflon® tubing, bailers, tape, plumbing paste);
- No Tyvek® clothing was worn;
- Clothes treated with stain- or rain-resistant coatings were avoided or had gone through several washings; no PostIt® Notes were handled or brought on site;
- No fast food wrappers, disposable cups or microwave popcorn were brought on site during sampling;

- Hands were washed after handling such items and prior to any sampling activities;
- No use of chemical (blue) ice packs was allowed; and
- Nitrile gloves were worn during all sample collection activities.

2.1. Soil Boring Advancement and Monitoring Well Installation

On August 26, 2016 we observed DrillEx Environmental (DrillEx) of West Boylston, Massachusetts advance three borings and install three groundwater monitoring wells [B101(MW), B102(MW), and B103(MW)] to evaluate environmental site conditions in the Project Area. Borings were advanced using hollow stem augers with continuous split spoon sampling. Boring locations are shown on Fig. 2. Boring and monitoring well installation logs are included in Appendix A.

GEI collected two soil samples from each boring consisting of composite samples from the 0 to 4 foot interval and the 4 to 8 foot interval (B101[S1-S2], B101[S3-S4], B102 [S1-S2], B102 [S3-S4], B103[S1-S2], B103[S3-S4]). GEI submitted the soil samples to Alpha Analytical, Inc. (Alpha) of Westborough, Massachusetts to be tested for PFOA, PFOS, and offsite disposal characterization parameters including: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), RCRA 8 Metals (arsenic, barium, cadmium, chromium (total), lead, mercury, selenium, silver), conductivity, corrosivity, ignitability, and reactivity (cyanide and sulfide). Soil chemical testing results are summarized in Table 1 and the laboratory data report is in Appendix B.

Based on conditions we observed during our subsurface investigation, the shallow subsurface in the Project Area generally consists of silt underlain by clay. The soils encountered during our subsurface investigation are described below, starting at the ground surface. The soil conditions are known only at the boring and test pit locations. Conditions between borings may differ significantly from those described below.

- Silt: A sandy silt with mostly non-plastic fines, composes the upper layer of the soil profile.
- Clay: A lean and sandy clay with low plasticity fines.
- Gravel (in B103[MW] only): Widely graded gravel with silt and sand.

2.2. Groundwater & Surface Water Sampling

On August 29, 2016, GEI developed monitoring wells B101(MW) and B102(MW). B103(MW) was not developed because the well was dry. GEI developed the wells by surging and removing water using a dedicated Watera® check valve and tubing. A well was considered developed when either:

- 10-well volumes were removed; or
- Water removed from the well was relatively free of fine-grained material; or
- The well ran dry.

Wells B101(MW) and B102 (MW) ran dry after removing approximately 2.25 gallons and 6 gallons, respectively.

On September 1, 2016, GEI returned to the Property to collect groundwater samples from B101(MW) and B102(MW) using low-flow methods. GEI used peristaltic pumps for low flow purging. Dedicated tubing was lowered to the mid-point of the saturated screen interval and a water level was used to periodically measure the water level in the well during purging. Purge rates were adjusted to minimize drawdown to the extent feasible. During low flow purging a YSI Sonde 6200 was used to measure temperature, pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and

turbidity. GEI collected a groundwater sample from the well when each of the parameters was stable for a minimum of three consecutive readings. Additionally, we collected a surface water sample (SW1) from Knight's Brook. Groundwater and surface water samples were submitted to Alpha to be tested for PFOA and PFOS. Groundwater and surface water chemical testing results are summarized in Table 2 and the laboratory data report is in Appendix B. A summary of groundwater levels during each visit is included in Table 3.

2.3. Hydraulic Conductivity Testing

On September 15, 2016, GEI conducted rising head well permeability tests on B101(MW) and B102(MW). The tests were performed using dedicated In-Situ Level TROLL 700 data loggers. Prior to starting the test, GEI collected water level and total depth readings from the wells. The data loggers were then placed near the bottom of each well and a peristaltic pump was used to draw down the water level. The water was then allowed to recharge to approximately the pre-purge level while the data loggers recorded the rebound in water level. GEI collected manual water level measurements throughout the duration of each test in order to perform quality control checks on the TROLL readings. We performed two tests on B101(MW) and three tests on B102(MW). The hydraulic conductivity testing results are summarized in Table 4.

3. Results

3.1. Soil Analytical Results

Soil samples did not contain detectable levels of PFOA, PFOS, VOCs, SVOCs, or PCBs. Soil chemical testing results indicated that presence of the following compounds above the laboratory detection limits:

- TPH
- Metals: arsenic, barium, chromium and lead.

TPH was detected above laboratory detection limit in samples B101(S1-S2); however, the concentration was well below the NHDES Method 1 Soil Standard (NH S-1). The NH S-1 standards are the lowest NH soil standards and are derived based on a residential exposure scenario whereby potential receptors of all ages may be exposed as the result of normal, everyday activities. Barium, chromium, and lead were detected in all the soil samples at concentrations less than NH S-1. Arsenic was detected in B102(S1-S2) and B102(S3-S4) at 12 milligrams per kilogram (mg/kg). This is slightly above the NH S-1 standard and the NHDES Background Concentration of 11 mg/kg but is still likely attributable to background conditions at the Property. Soil testing results are summarized in Table 1 and the laboratory data report is in Appendix B.

3.2. Groundwater & Surface Water Analytical Results

Groundwater and surface water testing results indicated the following:

- PFOA and PFOS were not detected in B101(MW).
- PFOA and PFOS were detected in B102(MW) but at concentrations below the NH AGQS of 0.07 µg/L.
- PFOA and PFOS were detected in sample SW1 from Knight's Brook at 0.842 µg/L and 2.91 µg/L, respectively. The total PFOA/PFOS concentration was 3.752 µg/L. Both the individual and total concentrations exceed the NH AGQS of 0.07 µg/L.

Groundwater testing results are summarized in Table 2 and the laboratory data report is in Appendix B.

3.3. Hydraulic Conductivity

Based on the testing results, we estimated the following average hydraulic conductivities:

- B101(MW) has an average hydraulic conductivity of 0.062 feet/day which is likely due to the silt and clay observed during installation of the well.
- B102(MW) has an average hydraulic conductivity of 0.222 feet/day which is likely due to the sand seam observed within the well screen interval. The sand seam was observed in the boring at approximately 5 feet below the ground surface.

The hydraulic conductivity testing results are summarized in Table 4 and the groundwater flow model is in Appendix C. Hydraulic conductivity results will be used to estimate dewatering rates for the soil and groundwater management plan.


4. Limitations

This report was prepared for the exclusive use of Eversource Energy. The conclusions provided by GEI in this report are based on the information contained in this report. Additional information not available to GEI at the time this report was prepared may result in a modification of our conclusions. This report has been prepared in accordance with generally accepted engineering and geohydrological practices. No warranty, express or implied, is made.

Please contact Jim Ash at JAsh@geiconsultants.com or 781-721-4018 or Mike Sabulis at MSabulis@geiconsultants.com or 781-721-4114 if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



James R. Ash, P.E., LSP
Senior Vice President



Michael Sabulis
Project Manager

CRC/MWS/JRA:jam

Attachments:

- Table 1 – Laboratory Testing Results – Soil
- Table 2 – Laboratory Testing Results – Groundwater and Surface Water
- Table 3 – Water Level Measurements
- Table 4 – Hydraulic Conductivity Test Results – Rising Head Test
- Fig. 1 – Site Location Map
- Fig. 2 – Site Plan
- Appendix A – Boring and Monitoring Well Installation Logs
- Appendix B – Laboratory Test Reports
- Appendix C – Groundwater Model Description

Tables

Table 1. Laboratory Testing Results - Soil
Darius Frink Farm
Eversource NH Seacoast Reliability Project
Newington, New Hampshire

					B101		B102		B103	
					S1-S2	S3-S4	S1-S2	S3-S4	S1-S2	S3-S4
					8/26/2016	8/26/2016	8/26/2016	8/26/2016	8/26/2016	8/26/2016
					0-4	4-8	0-4	4-6.8	0-4	4-8
Analyte	Method	Units	NH S-1	NHDES Background						
Perflourinated Compounds (PFCs)	537	ng/g								
Perfluorooctanoic Acid (PFOA)			NS	NS	< 1.96	< 1.96	< 1.95	< 1.95	< 1.93	< 2.02
Perfluorooctane Sulfanate (PFOS)			NS	NS	< 1.96	< 1.96	< 1.95	< 1.95	< 1.93	< 2.02
Volatile Organic Compounds (VOCs)	8260C	mg/kg								
Total VOCs			NS	NS	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs)	8270D	mg/kg								
Total SVOCs			NS	NS	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPH)	8015	mg/kg								
Total Petroleum Hydrocarbons			10000	NS	39.0	< 39.8	< 39.5	< 39.9	< 35.5	< 34.1
Polychlorinated Biphenyls (PCBs)	8082A	mg/kg								
Total PCBs			1	NS	ND	ND	ND	ND	ND	ND
Total Metals		mg/kg								
Arsenic	6010C		11	11	7.4	5.6	12	12	9.0	7.1
Barium	6010C		1,000	NS	28	33	44	31	30	18
Cadmium	6010C		33	2	< 0.47	< 0.48	< 0.47	< 0.49	< 0.42	< 0.42
Chromium (Total)	6010C		1,000	33	14 F-,G	16 F-,G	19 F-,G	18 F-,G	30 F-,G	26 F-,G
Lead	6010C		400	51	5.7 F-	4.6 F-	6.8 F-	8.9 F-	7.2 F-	8.6 F-
Mercury	7471B		7	0.3	< 0.08	< 0.08	< 0.08	< 0.08	< 0.07	< 0.07
Selenium	6010C		180	5	< 0.94	< 0.96	< 0.94	< 0.98	< 0.85	< 0.84
Silver	6010C		89	NS	< 0.47	< 0.48	< 0.47	< 0.49	< 0.42	< 0.42
Other										
Conductivity	EPA 120.1M	umhos/cm	NS	NS	< 10	< 10	< 10	28 G	< 10	44 G
Corrosivity (pH)	9045D	S.U.	NS	NS	6.2 A	6.4 A	6.3 A	7.4 A	5.7 A	0.3
Oxidation-Reduction Potential	ASTM D1498-76M	mv	NS	NS	180 A	170 A	170 A	190 A	170 A	150 A
Flashpoint	1030	deg F	NS	NS	NI	NI	NI	NI	NI	NI
Reactive Cyanide	CHAP7	mg/kg	NS	NS	< 10	< 10	< 10	< 10	< 10	< 10
Reactive Sulfide	CHAP7	mg/kg	NS	NS	< 10	< 10	< 10	< 10	< 10	< 10
Percent Solids	SM 2540G-97 MOD	%	NS	NS	84.2	80.9	83.6	79.2	93.3	92.4

General Notes:

1. In general, analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
3. NH S-1 and NHDES Background standards from The New Hampshire Code of Administrative Rules, Chapter Env-Or 600 - Contaminated Site Management.
4. Values in bold exceed the NH S-1 and/or NDHES Background values.
5. NS = No standard or criteria has been established for this analyte.
6. NI = Not Ignitable
7. ND = Not detected.
8. Soil samples for VOC analysis were preserved in the field with methanol.
10. mg/kg = milligrams per kilogram.
9. umhos/cm = micromhos per centimeter.
10. S.U. = standard units.
11. mv = millivolts.
12. deg F = degrees Fahrenheit.
13. ng/g = nanograms per gram.

Qualifying Notes:

- A The result is estimated due to exceedance of holding time criteria.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.

Table 2. Laboratory Testing Results - Groundwater and Surface Water

Darius Frink Farm

Eversource NH Seacoast Reliability Project

Newington, New Hampshire

Sample Location:				1607530-B101(MW)	1607530-B102(MW)	1607530-SW1	
				Sample Date:	9/1/2016	9/1/2016	9/1/2016
				Screen Interval:	2-8'	2-7'	NA
Analyte	Method	Units	NH AGQS				
Perfluorinated Compounds (PFCs)	537	ug/L					
Perfluorooctanoic Acid (PFOA)			0.07	< 0.00786	0.0112	0.842	
Perfluorooctane Sulfonate (PFOS)			0.07	< 0.00786	0.0161	2.91	
Total PFCs			0.07	ND	0.0273	3.752	

General Notes:

1. In general, analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
3. NH AGQS = New Hampshire Ambient Groundwater Quality Standards
4. NH AGQS for PFOA and PFOS from Emergency Rule 05-31-16 to Amend The New Hampshire Code of Administrative Rules Env-OR 603.03(b), eff 6-1-15
5. Values in bold exceed the NH AGQS values.
6. ND = Not detected.
7. ug/L = milligrams per liter.

Table 3. Water Level Measurements

Darius Frink Farm

Eversource NH Seacoast Reliability Project

Newington, New Hampshire

Well ID	August 26, 2016		August 29, 2016		September 1, 2016		September 15, 2016	
	Depth to GW from Top of PVC (ft)	Depth to GW from Ground Surface (ft)	Depth to GW from Top of PVC (ft)	Depth to GW from Ground Surface (ft)	Depth to GW from Top of PVC (ft)	Depth to GW from Ground Surface (ft)	Depth to GW from Top of PVC (ft)	Depth to GW from Ground Surface (ft)
MW101	ND	ND	7.91	4.79	7.79	4.67	8.04	4.92
MW102	7.29	4.39	6.67	3.77	6.79	3.89	7.18	4.39
MW103	NM	NM	ND	ND	ND	ND	ND	ND

Notes:

1. ft = feet
2. GW = groundwater
3. NM = Not measured
4. ND = Not detected

Table 4. Hydraulic Conductivity Test Results - Rising Head Test

Darius Frink Farm

Eversource NH Seacoast Reliability Project

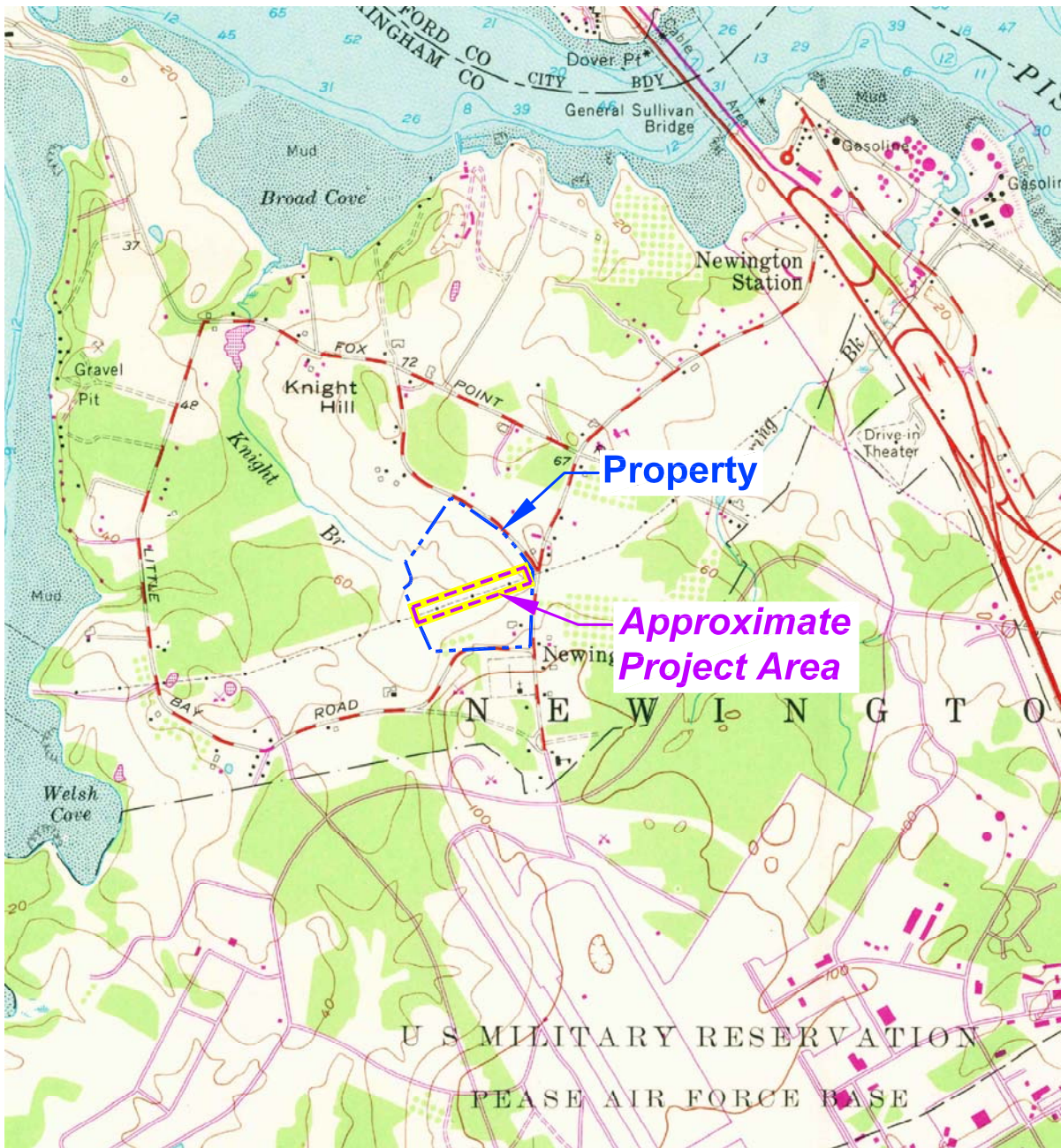
Newington, New Hampshire

Well ID	Hydraulic Conductivity (ft/day)			
	Test 1	Test 2	Test 3	Average
B101(MW)	0.08	0.05	NA	0.062
B102(MW)	0.23	0.22	0.22	0.222
B103(MW)	NT	NT	NT	

Notes:

1. NA = Not applicable
2. NT = Not tested due to dry well
3. ft = feet

Figures



This Image from U.S.G.S. Topographic 7.5 Minute Series
 Portsmouth, NH - ME Quadrangle, 1981.
 Datum is National Geodetic Vertical Datum of 1929 (NGVD29).
 Contour Interval is 20 Feet.



QUADRANGLE LOCATION

Soil and Water Investigation
 Darius Frink Farm
 Newington, New Hampshire
 Eversource Energy
 Manchester, New Hampshire

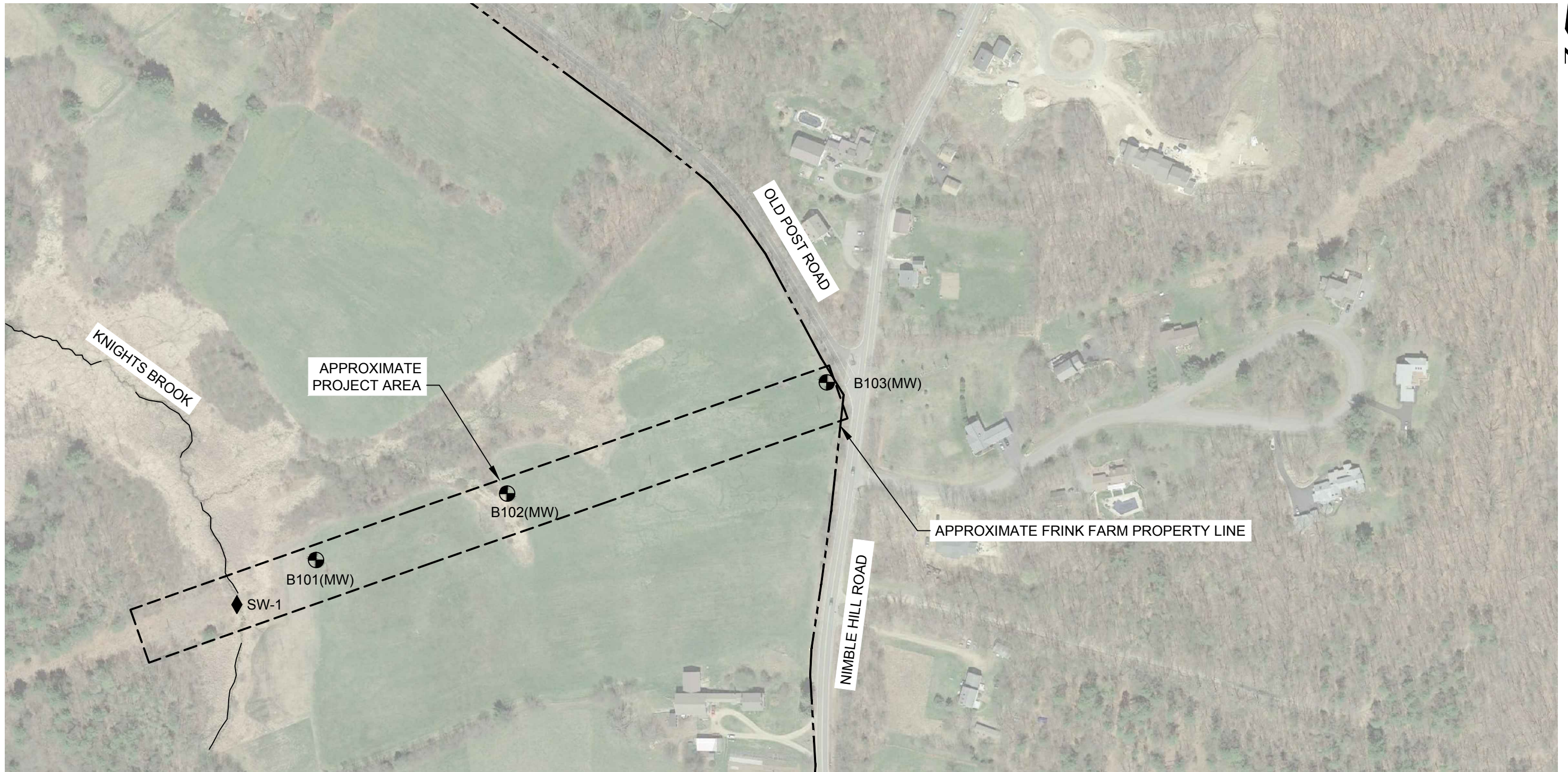


Project 1607530

SITE LOCATION MAP

December 2016

Fig. 1



LEGEND:

- MONITORING WELL INSTALLED BY GEI IN AUGUST 2016
- ◆ SURFACE WATER SAMPLE COLLECTED BY GEI IN SEPTEMBER 2016



Soil and Water Investigation
Darius Frink Farm
Newington, New Hampshire

Eversource
Manchester, New Hampshire



SITE PLAN

Project 1607530

December 2016

Fig. 2

Appendix A

Boring Logs

BORING INFORMATION

LOCATION: West end of field at Frink Farm.

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM: NA

TOTAL DEPTH (ft): 8.0

LOGGED BY: C. Conti

DATE START/END: 8/26/2016 - 8/26/2016

DRILLING COMPANY: Drilex Environmental

DRILLER NAME: J. Jalutkewicz

RIG TYPE: CME 45

BORING**B101**

PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic

CASING I.D./O.D.: 4.25 inch/ 8 inch

CORE BARREL TYPE: NA

AUGER I.D./O.D.: NA / NA

DRILL ROD O.D.:

CORE BARREL I.D./O.D. NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Not Encountered

ABBREVIATIONS:

Pen. = Penetration Length
 Rec. = Recovery Length
 RQD = Rock Quality Designation
 = Length of Sound Cores > 4 in / Pen., %
 WOR = Weight of Rods
 WOH = Weight of Hammer

S = Split Spoon Sample
 C = Core Sample
 U = Undisturbed Sample
 SC = Sonic Core
 DP = Direct Push Sample
 HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
 Sv = Pocket Torvane Shear Strength
 LL = Liquid Limit
 PI = Plasticity Index
 PID = Photoionization Detector
 I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
 Blows per 6 in.: 140-lb hammer falling
 30 inches to drive a 2-inch-O.D.
 split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0 to 2	24/18	3-4-4-6	S1= 32.5 ppm	SILT	S1: SILT WITH SAND (ML); ~90% nonplastic fines, ~10% fine sand, gray, dry, roots.
		S2	2 to 4	24/20	6-6-5-5	S2= 7.0 ppm		S2: LEAN CLAY WITH SAND (CL); ~90% low plasticity fines, ~10% mostly fine sand, gray. Moist in bottom 6 inches.
	5	S3	4 to 6	24/21	1-2-2-2	S3= 5.6 ppm	CLAY	S3: Similar to S2. Wet starting at ~4.5 to 5 feet. Some reddish-orange mottling.
		S4	6 to 8	24/17	3-3-2-1	S4= 4.6 ppm		S4: Similar to S2. Gray-light brown, wet, some mottling with reddish orange.
	10							Bottom of boring at ~8 feet. Installed monitoring well.
	15							
	20							

NOTES:

Samples collected: B101(S1-S2) composite and B101(S3-S4) composite.

PROJECT NAME: Eversource New Hampshire Seacoast Reliability Project

CITY/STATE: Newington, NH

GEI PROJECT NUMBER: 1607530



BORING INFORMATION

LOCATION: Middle of field at Frink Farm.

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM: NA

TOTAL DEPTH (ft): 7.5

LOGGED BY: C. Conti

DATE START/END: 8/26/2016 - 8/26/2016

DRILLING COMPANY: Drilrex Environmental

DRILLER NAME: J. Jalutkewicz

RIG TYPE: CME 45

BORING**B102**

PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic

CASING I.D./O.D.: 4.25 inch/ 8 inch

CORE BARREL TYPE: NA

AUGER I.D./O.D.: NA / NA

DRILL ROD O.D.:

CORE BARREL I.D./O.D. NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Not Encountered

ABBREVIATIONS:

Pen. = Penetration Length
 Rec. = Recovery Length
 RQD = Rock Quality Designation
 = Length of Sound Cores > 4 in / Pen., %
 WOR = Weight of Rods
 WOH = Weight of Hammer

S = Split Spoon Sample
 C = Core Sample
 U = Undisturbed Sample
 SC = Sonic Core
 DP = Direct Push Sample
 HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
 Sv = Pocket Torvane Shear Strength
 LL = Liquid Limit
 PI = Plasticity Index
 PID = Photoionization Detector
 I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
 Blows per 6 in.: 140-lb hammer falling
 30 inches to drive a 2-inch-O.D.
 split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0 to 2	24/14	3-3-5-5	S1= 5.6 ppm	SILT	S1: SILT WITH SAND (ML); ~85% nonplastic fines, ~15% mostly fine sand, light brown to gray, roots.
		S2	2 to 4	24/20	8-9-10-10	S2= 5.1 ppm		S2: SILT (ML); ~95% low plasticity fines, ~5% fine sand, gray.
	5	S3	4 to 6	24/19	2-2-2-2	S3= 5.4 ppm	CLAY	S3: LEAN CLAY WITH SAND (CL); ~85% low plasticity fines, ~15% mostly fine sand, brown-gray. Wet at 5 feet with 2" seam of fine sand at ~ 5 feet. Increasing fine sand with depth.
		S4	6 to 6.8	9/9	18-55/3"	S4= 5.1 ppm Weathered rock in tip. Auger refusal at 7.5 feet.		S4: SANDY LEAN CLAY (CL); ~75% low plasticity fines, ~25% mostly fine sand, light brown- gray, wet, rock in tip.
	10							Bottom of boring @ 7.5 feet. Installed monitoring well. Rock shifted, bottom of screen at 7 feet.
	15							
	20							

NOTES:

Samples collected: B102(S1-S2) composite and B102 (S3-S4) composite.

PROJECT NAME: Eversource New Hampshire Seacoast Reliability Project

CITY/STATE: Newington, NH

GEI PROJECT NUMBER: 1607530



BORING INFORMATION

LOCATION: East end of field Frink Farm.

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM: NA

TOTAL DEPTH (ft): 8.0

LOGGED BY: C. Conti

DATE START/END: 8/26/2016 - 8/26/2016

DRILLING COMPANY: Drilex Environmental

DRILLER NAME: J. Jalutkewicz

RIG TYPE: CME 45

BORING**B103**

PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic

CASING I.D./O.D.: 4.25 inch/ 8 inch

CORE BARREL TYPE: NA

AUGER I.D./O.D.: NA / NA

DRILL ROD O.D.:

CORE BARREL I.D./O.D. NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Not Encountered

ABBREVIATIONS:

Pen. = Penetration Length
 Rec. = Recovery Length
 RQD = Rock Quality Designation
 = Length of Sound Cores > 4 in / Pen., %
 WOR = Weight of Rods
 WOH = Weight of Hammer

S = Split Spoon Sample
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 I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
 Blows per 6 in.: 140-lb hammer falling
 30 inches to drive a 2-inch-O.D.
 split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0 to 2	24/13	3-5-8-8	S1= 0.3 ppm	SILT	S1: SILT WITH SAND (ML); ~70% nonplastic fines, ~25% mostly fine sand, ~5% gravel to 3/4", light brown, dry, some roots in top 3".
		S2	2 to 2.9	11/11	18-65/5"	S2= 0.5 ppm		S2: Similar to S1, no roots.
	5	S3	4 to 6	24/13	18-19-25-32	Cobble from 3-4 feet. S3= 0.6 ppm	GRAVEL	S3: WIDELY GRADED GRAVEL WITH SILT AND SAND (GW-GM); ~75% fine to coarse gravel, ~15% mostly fine sand, ~10% nonplastic fines, brown.
		S4			55-30-80/7"	S4= 0.8 ppm		S4: WIDELY GRADED GRAVEL WITH SILT AND SAND (GW-GM); ~60% fine to coarse gravel, ~30% fine to coarse sand, ~10% nonplastic fines, brown to reddish brown.
	10					Refusal on cobble/ weathered rock. Augered to 8 feet.		Bottom of boring at 8 feet. Installed monitoring well.
	15							
	20							

NOTES:

Samples collected: B103(S1-S2) composite and B103 (S3-S4) composite.

PROJECT NAME: Eversource New Hampshire Seacoast Reliability Project

CITY/STATE: Newington, NH

GEI PROJECT NUMBER: 1607530

GEI

Consultants

Groundwater Well Installation Log				B103(MW)																																																																				
Project <u>Eversource New Hampshire Seacoast Reliability Project</u>				GEI Proj. No. <u>1607530</u>																																																																				
City / Town <u>Newington, NH</u>				Location <u>West end of field at</u>																																																																				
Client <u>Eversource</u>				Frink Farm																																																																				
Contractor <u>Drillex Environmental</u>																																																																								
Driller <u>J. Jalutkewicz</u> GEI Rep. <u>C. Conti</u>				Install Date <u>8/26/2016</u>																																																																				
Survey Datum: _____																																																																								
Ground Elevation: _____																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">9/15/2016</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 10%; text-align: center;">ND</td> </tr> <tr> <td style="text-align: center;">9/1/2016</td> <td style="text-align: center;">-</td> <td style="text-align: center;">ND</td> </tr> <tr> <td style="text-align: center;">8/29/2016</td> <td style="text-align: center;">-</td> <td style="text-align: center;">ND</td> </tr> <tr> <td style="text-align: center;">8/26/2106</td> <td style="text-align: center;">-</td> <td style="text-align: center;">NM</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Time</td> <td style="text-align: center;">Distance to ▼ below top of riser pipe</td> </tr> </table>		9/15/2016	-	ND	9/1/2016	-	ND	8/29/2016	-	ND	8/26/2106	-	NM	Date	Time	Distance to ▼ below top of riser pipe	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 2;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Length of Surface Casing above Ground</td> <td style="width: 60%; text-align: right;">Flushmount</td> </tr> <tr> <td>Dist. Top of Surf. Casing to Top of Riser Pipe</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Type and Thickness of Seal around Surface Casing</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>ID of Surface Casing</td> <td style="text-align: right;">4.25"</td> </tr> <tr> <td>Type of Surface Casing</td> <td style="text-align: right;">Flushmount</td> </tr> <tr> <td>Depth Bottom of Surface Casing</td> <td style="text-align: right;">10"</td> </tr> <tr> <td>ID and OD of Riser Pipe</td> <td style="text-align: right;">2.0"/2.5"</td> </tr> <tr> <td>Type of Riser Pipe</td> <td style="text-align: right;">Sch. 40 PVC</td> </tr> <tr> <td>Type of Backfill around Riser Pipe</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Diameter of Borehole</td> <td style="text-align: right;">8"</td> </tr> <tr> <td>Depth Top of Seal</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Type of Seal</td> <td style="text-align: right;">Med. Bentonite Chips</td> </tr> <tr> <td>Depth Bottom of Seal</td> <td style="text-align: right;">1.5'</td> </tr> <tr> <td>Depth Top of Screened Section</td> <td style="text-align: right;">2'</td> </tr> <tr> <td>Type of Screen</td> <td style="text-align: right;">Sch. 40 PVC</td> </tr> <tr> <td>Description of Screen Openings</td> <td style="text-align: right;">0.010 Slotted</td> </tr> <tr> <td>ID and OD of Screened Section</td> <td style="text-align: right;">2.0"/2.5"</td> </tr> <tr> <td>Type of Filter Material</td> <td style="text-align: right;">Sand Type 0</td> </tr> <tr> <td>Depth Bottom of Screened Section</td> <td style="text-align: right;">7.7'</td> </tr> <tr> <td>Depth Bottom of Silt Trap</td> <td style="text-align: right;">8'</td> </tr> <tr> <td>Depth Bottom of Filter Material</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Depth Top of Seal</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Type of Seal</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Depth Bottom of Seal</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Type of Backfill below Filter Material</td> <td style="text-align: right;">NA</td> </tr> <tr> <td>Bottom of Borehole</td> <td style="text-align: right;">8'</td> </tr> </table> </div> </div>				Length of Surface Casing above Ground	Flushmount	Dist. Top of Surf. Casing to Top of Riser Pipe	NA	Type and Thickness of Seal around Surface Casing	NA	ID of Surface Casing	4.25"	Type of Surface Casing	Flushmount	Depth Bottom of Surface Casing	10"	ID and OD of Riser Pipe	2.0"/2.5"	Type of Riser Pipe	Sch. 40 PVC	Type of Backfill around Riser Pipe	NA	Diameter of Borehole	8"	Depth Top of Seal	NA	Type of Seal	Med. Bentonite Chips	Depth Bottom of Seal	1.5'	Depth Top of Screened Section	2'	Type of Screen	Sch. 40 PVC	Description of Screen Openings	0.010 Slotted	ID and OD of Screened Section	2.0"/2.5"	Type of Filter Material	Sand Type 0	Depth Bottom of Screened Section	7.7'	Depth Bottom of Silt Trap	8'	Depth Bottom of Filter Material	NA	Depth Top of Seal	NA	Type of Seal	NA	Depth Bottom of Seal	NA	Type of Backfill below Filter Material	NA	Bottom of Borehole	8'
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Notes:																																																																								



Appendix B

Laboratory Data Reports



ANALYTICAL REPORT

Lab Number:	L1627010
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Mike Sabulis
Phone:	(781) 721-4114
Project Name:	EVERSOURCE NH SRP
Project Number:	1607530
Report Date:	09/15/16

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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: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1627010-01	1607530-B103(S1-S2)	SOIL	NEWINGTON, NH	08/26/16 09:25	08/29/16
L1627010-02	1607530-B103(S3-S4)	SOIL	NEWINGTON, NH	08/26/16 09:55	08/29/16
L1627010-03	1607530-B102(S1-S2)	SOIL	NEWINGTON, NH	08/26/16 10:45	08/29/16
L1627010-04	1607530-B102(S3-S4)	SOIL	NEWINGTON, NH	08/26/16 11:00	08/29/16
L1627010-05	1607530-B101(S1-S2)	SOIL	NEWINGTON, NH	08/26/16 11:45	08/29/16
L1627010-06	1607530-B101(S3-S4)	SOIL	NEWINGTON, NH	08/26/16 12:00	08/29/16

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

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: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

Case Narrative (continued)

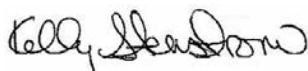
Report Submission

This final report replaces the partial report issued September 6, 2016 and includes the results of all requested analyses.

The analyses of PFOA and PFOS by Method 537 were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

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: 09/15/16

ORGANICS

VOLATILES

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 12:20
Analyst: BN
Percent Solids: 93%

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	610	--	1
1,1-Dichloroethane	ND		ug/kg	92	--	1
Chloroform	ND		ug/kg	92	--	1
Carbon tetrachloride	ND		ug/kg	61	--	1
1,2-Dichloropropane	ND		ug/kg	210	--	1
Dibromochloromethane	ND		ug/kg	61	--	1
1,1,2-Trichloroethane	ND		ug/kg	92	--	1
Tetrachloroethene	ND		ug/kg	61	--	1
Chlorobenzene	ND		ug/kg	61	--	1
Trichlorofluoromethane	ND		ug/kg	300	--	1
1,2-Dichloroethane	ND		ug/kg	61	--	1
1,1,1-Trichloroethane	ND		ug/kg	61	--	1
Bromodichloromethane	ND		ug/kg	61	--	1
trans-1,3-Dichloropropene	ND		ug/kg	61	--	1
cis-1,3-Dichloropropene	ND		ug/kg	61	--	1
1,3-Dichloropropene, Total	ND		ug/kg	61	--	1
1,1-Dichloropropene	ND		ug/kg	300	--	1
Bromoform	ND		ug/kg	240	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	61	--	1
Benzene	ND		ug/kg	61	--	1
Toluene	ND		ug/kg	92	--	1
Ethylbenzene	ND		ug/kg	61	--	1
Chloromethane	ND		ug/kg	300	--	1
Bromomethane	ND		ug/kg	120	--	1
Vinyl chloride	ND		ug/kg	120	--	1
Chloroethane	ND		ug/kg	120	--	1
1,1-Dichloroethene	ND		ug/kg	61	--	1
trans-1,2-Dichloroethene	ND		ug/kg	92	--	1
Trichloroethene	ND		ug/kg	61	--	1
1,2-Dichlorobenzene	ND		ug/kg	300	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-01**Date Collected:** 08/26/16 09:25**Client ID:** 1607530-B103(S1-S2)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	300	--	1
1,4-Dichlorobenzene	ND		ug/kg	300	--	1
Methyl tert butyl ether	ND		ug/kg	120	--	1
p/m-Xylene	ND		ug/kg	120	--	1
o-Xylene	ND		ug/kg	120	--	1
Xylenes, Total	ND		ug/kg	120	--	1
cis-1,2-Dichloroethene	ND		ug/kg	61	--	1
1,2-Dichloroethene, Total	ND		ug/kg	61	--	1
Dibromomethane	ND		ug/kg	610	--	1
1,4-Dichlorobutane	ND		ug/kg	610	--	1
1,2,3-Trichloropropane	ND		ug/kg	610	--	1
Styrene	ND		ug/kg	120	--	1
Dichlorodifluoromethane	ND		ug/kg	610	--	1
Acetone	ND		ug/kg	2200	--	1
Carbon disulfide	ND		ug/kg	610	--	1
2-Butanone	ND		ug/kg	610	--	1
Vinyl acetate	ND		ug/kg	610	--	1
4-Methyl-2-pentanone	ND		ug/kg	610	--	1
2-Hexanone	ND		ug/kg	610	--	1
Ethyl methacrylate	ND		ug/kg	610	--	1
Acrylonitrile	ND		ug/kg	240	--	1
Bromochloromethane	ND		ug/kg	300	--	1
Tetrahydrofuran	ND		ug/kg	1200	--	1
2,2-Dichloropropane	ND		ug/kg	300	--	1
1,2-Dibromoethane	ND		ug/kg	240	--	1
1,3-Dichloropropane	ND		ug/kg	300	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	61	--	1
Bromobenzene	ND		ug/kg	300	--	1
n-Butylbenzene	ND		ug/kg	61	--	1
sec-Butylbenzene	ND		ug/kg	61	--	1
tert-Butylbenzene	ND		ug/kg	300	--	1
o-Chlorotoluene	ND		ug/kg	300	--	1
p-Chlorotoluene	ND		ug/kg	300	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	300	--	1
Hexachlorobutadiene	ND		ug/kg	300	--	1
Isopropylbenzene	ND		ug/kg	61	--	1
p-Isopropyltoluene	ND		ug/kg	61	--	1
Naphthalene	ND		ug/kg	300	--	1
n-Propylbenzene	ND		ug/kg	61	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	300	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	300	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	300	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	300	--	1
Ethyl ether	ND		ug/kg	300	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	94		70-130

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 12:47
Analyst: BN
Percent Solids: 92%

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	520	--	1
1,1-Dichloroethane	ND		ug/kg	77	--	1
Chloroform	ND		ug/kg	77	--	1
Carbon tetrachloride	ND		ug/kg	52	--	1
1,2-Dichloropropane	ND		ug/kg	180	--	1
Dibromochloromethane	ND		ug/kg	52	--	1
1,1,2-Trichloroethane	ND		ug/kg	77	--	1
Tetrachloroethene	ND		ug/kg	52	--	1
Chlorobenzene	ND		ug/kg	52	--	1
Trichlorofluoromethane	ND		ug/kg	260	--	1
1,2-Dichloroethane	ND		ug/kg	52	--	1
1,1,1-Trichloroethane	ND		ug/kg	52	--	1
Bromodichloromethane	ND		ug/kg	52	--	1
trans-1,3-Dichloropropene	ND		ug/kg	52	--	1
cis-1,3-Dichloropropene	ND		ug/kg	52	--	1
1,3-Dichloropropene, Total	ND		ug/kg	52	--	1
1,1-Dichloropropene	ND		ug/kg	260	--	1
Bromoform	ND		ug/kg	210	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	52	--	1
Benzene	ND		ug/kg	52	--	1
Toluene	ND		ug/kg	77	--	1
Ethylbenzene	ND		ug/kg	52	--	1
Chloromethane	ND		ug/kg	260	--	1
Bromomethane	ND		ug/kg	100	--	1
Vinyl chloride	ND		ug/kg	100	--	1
Chloroethane	ND		ug/kg	100	--	1
1,1-Dichloroethene	ND		ug/kg	52	--	1
trans-1,2-Dichloroethene	ND		ug/kg	77	--	1
Trichloroethene	ND		ug/kg	52	--	1
1,2-Dichlorobenzene	ND		ug/kg	260	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-02**Date Collected:** 08/26/16 09:55**Client ID:** 1607530-B103(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	260	--	1
1,4-Dichlorobenzene	ND		ug/kg	260	--	1
Methyl tert butyl ether	ND		ug/kg	100	--	1
p/m-Xylene	ND		ug/kg	100	--	1
o-Xylene	ND		ug/kg	100	--	1
Xylenes, Total	ND		ug/kg	100	--	1
cis-1,2-Dichloroethene	ND		ug/kg	52	--	1
1,2-Dichloroethene, Total	ND		ug/kg	52	--	1
Dibromomethane	ND		ug/kg	520	--	1
1,4-Dichlorobutane	ND		ug/kg	520	--	1
1,2,3-Trichloropropane	ND		ug/kg	520	--	1
Styrene	ND		ug/kg	100	--	1
Dichlorodifluoromethane	ND		ug/kg	520	--	1
Acetone	ND		ug/kg	1800	--	1
Carbon disulfide	ND		ug/kg	520	--	1
2-Butanone	ND		ug/kg	520	--	1
Vinyl acetate	ND		ug/kg	520	--	1
4-Methyl-2-pentanone	ND		ug/kg	520	--	1
2-Hexanone	ND		ug/kg	520	--	1
Ethyl methacrylate	ND		ug/kg	520	--	1
Acrylonitrile	ND		ug/kg	210	--	1
Bromochloromethane	ND		ug/kg	260	--	1
Tetrahydrofuran	ND		ug/kg	1000	--	1
2,2-Dichloropropane	ND		ug/kg	260	--	1
1,2-Dibromoethane	ND		ug/kg	210	--	1
1,3-Dichloropropane	ND		ug/kg	260	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	52	--	1
Bromobenzene	ND		ug/kg	260	--	1
n-Butylbenzene	ND		ug/kg	52	--	1
sec-Butylbenzene	ND		ug/kg	52	--	1
tert-Butylbenzene	ND		ug/kg	260	--	1
o-Chlorotoluene	ND		ug/kg	260	--	1
p-Chlorotoluene	ND		ug/kg	260	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	260	--	1
Hexachlorobutadiene	ND		ug/kg	260	--	1
Isopropylbenzene	ND		ug/kg	52	--	1
p-Isopropyltoluene	ND		ug/kg	52	--	1
Naphthalene	ND		ug/kg	260	--	1
n-Propylbenzene	ND		ug/kg	52	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	260	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	260	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	260	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	260	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	260	--	1
Ethyl ether	ND		ug/kg	260	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	94		70-130

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 13:13
Analyst: BN
Percent Solids: 84%

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	650	--	1
1,1-Dichloroethane	ND		ug/kg	97	--	1
Chloroform	ND		ug/kg	97	--	1
Carbon tetrachloride	ND		ug/kg	65	--	1
1,2-Dichloropropane	ND		ug/kg	230	--	1
Dibromochloromethane	ND		ug/kg	65	--	1
1,1,2-Trichloroethane	ND		ug/kg	97	--	1
Tetrachloroethene	ND		ug/kg	65	--	1
Chlorobenzene	ND		ug/kg	65	--	1
Trichlorofluoromethane	ND		ug/kg	320	--	1
1,2-Dichloroethane	ND		ug/kg	65	--	1
1,1,1-Trichloroethane	ND		ug/kg	65	--	1
Bromodichloromethane	ND		ug/kg	65	--	1
trans-1,3-Dichloropropene	ND		ug/kg	65	--	1
cis-1,3-Dichloropropene	ND		ug/kg	65	--	1
1,3-Dichloropropene, Total	ND		ug/kg	65	--	1
1,1-Dichloropropene	ND		ug/kg	320	--	1
Bromoform	ND		ug/kg	260	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	65	--	1
Benzene	ND		ug/kg	65	--	1
Toluene	ND		ug/kg	97	--	1
Ethylbenzene	ND		ug/kg	65	--	1
Chloromethane	ND		ug/kg	320	--	1
Bromomethane	ND		ug/kg	130	--	1
Vinyl chloride	ND		ug/kg	130	--	1
Chloroethane	ND		ug/kg	130	--	1
1,1-Dichloroethene	ND		ug/kg	65	--	1
trans-1,2-Dichloroethene	ND		ug/kg	97	--	1
Trichloroethene	ND		ug/kg	65	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS**

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
Methyl tert butyl ether	ND		ug/kg	130	--	1
p/m-Xylene	ND		ug/kg	130	--	1
o-Xylene	ND		ug/kg	130	--	1
Xylenes, Total	ND		ug/kg	130	--	1
cis-1,2-Dichloroethene	ND		ug/kg	65	--	1
1,2-Dichloroethene, Total	ND		ug/kg	65	--	1
Dibromomethane	ND		ug/kg	650	--	1
1,4-Dichlorobutane	ND		ug/kg	650	--	1
1,2,3-Trichloropropane	ND		ug/kg	650	--	1
Styrene	ND		ug/kg	130	--	1
Dichlorodifluoromethane	ND		ug/kg	650	--	1
Acetone	ND		ug/kg	2300	--	1
Carbon disulfide	ND		ug/kg	650	--	1
2-Butanone	ND		ug/kg	650	--	1
Vinyl acetate	ND		ug/kg	650	--	1
4-Methyl-2-pentanone	ND		ug/kg	650	--	1
2-Hexanone	ND		ug/kg	650	--	1
Ethyl methacrylate	ND		ug/kg	650	--	1
Acrylonitrile	ND		ug/kg	260	--	1
Bromochloromethane	ND		ug/kg	320	--	1
Tetrahydrofuran	ND		ug/kg	1300	--	1
2,2-Dichloropropane	ND		ug/kg	320	--	1
1,2-Dibromoethane	ND		ug/kg	260	--	1
1,3-Dichloropropane	ND		ug/kg	320	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	65	--	1
Bromobenzene	ND		ug/kg	320	--	1
n-Butylbenzene	ND		ug/kg	65	--	1
sec-Butylbenzene	ND		ug/kg	65	--	1
tert-Butylbenzene	ND		ug/kg	320	--	1
o-Chlorotoluene	ND		ug/kg	320	--	1
p-Chlorotoluene	ND		ug/kg	320	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Isopropylbenzene	ND		ug/kg	65	--	1
p-Isopropyltoluene	ND		ug/kg	65	--	1
Naphthalene	ND		ug/kg	320	--	1
n-Propylbenzene	ND		ug/kg	65	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	320	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	320	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	320	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	320	--	1
Ethyl ether	ND		ug/kg	320	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	94		70-130

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 13:40
Analyst: BN
Percent Solids: 79%

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	480	--	1
1,1-Dichloroethane	ND		ug/kg	73	--	1
Chloroform	ND		ug/kg	73	--	1
Carbon tetrachloride	ND		ug/kg	48	--	1
1,2-Dichloropropane	ND		ug/kg	170	--	1
Dibromochloromethane	ND		ug/kg	48	--	1
1,1,2-Trichloroethane	ND		ug/kg	73	--	1
Tetrachloroethene	ND		ug/kg	48	--	1
Chlorobenzene	ND		ug/kg	48	--	1
Trichlorofluoromethane	ND		ug/kg	240	--	1
1,2-Dichloroethane	ND		ug/kg	48	--	1
1,1,1-Trichloroethane	ND		ug/kg	48	--	1
Bromodichloromethane	ND		ug/kg	48	--	1
trans-1,3-Dichloropropene	ND		ug/kg	48	--	1
cis-1,3-Dichloropropene	ND		ug/kg	48	--	1
1,3-Dichloropropene, Total	ND		ug/kg	48	--	1
1,1-Dichloropropene	ND		ug/kg	240	--	1
Bromoform	ND		ug/kg	190	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	48	--	1
Benzene	ND		ug/kg	48	--	1
Toluene	ND		ug/kg	73	--	1
Ethylbenzene	ND		ug/kg	48	--	1
Chloromethane	ND		ug/kg	240	--	1
Bromomethane	ND		ug/kg	97	--	1
Vinyl chloride	ND		ug/kg	97	--	1
Chloroethane	ND		ug/kg	97	--	1
1,1-Dichloroethene	ND		ug/kg	48	--	1
trans-1,2-Dichloroethene	ND		ug/kg	73	--	1
Trichloroethene	ND		ug/kg	48	--	1
1,2-Dichlorobenzene	ND		ug/kg	240	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-04**Date Collected:** 08/26/16 11:00**Client ID:** 1607530-B102(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	240	--	1
1,4-Dichlorobenzene	ND		ug/kg	240	--	1
Methyl tert butyl ether	ND		ug/kg	97	--	1
p/m-Xylene	ND		ug/kg	97	--	1
o-Xylene	ND		ug/kg	97	--	1
Xylenes, Total	ND		ug/kg	97	--	1
cis-1,2-Dichloroethene	ND		ug/kg	48	--	1
1,2-Dichloroethene, Total	ND		ug/kg	48	--	1
Dibromomethane	ND		ug/kg	480	--	1
1,4-Dichlorobutane	ND		ug/kg	480	--	1
1,2,3-Trichloropropane	ND		ug/kg	480	--	1
Styrene	ND		ug/kg	97	--	1
Dichlorodifluoromethane	ND		ug/kg	480	--	1
Acetone	ND		ug/kg	1700	--	1
Carbon disulfide	ND		ug/kg	480	--	1
2-Butanone	ND		ug/kg	480	--	1
Vinyl acetate	ND		ug/kg	480	--	1
4-Methyl-2-pentanone	ND		ug/kg	480	--	1
2-Hexanone	ND		ug/kg	480	--	1
Ethyl methacrylate	ND		ug/kg	480	--	1
Acrylonitrile	ND		ug/kg	190	--	1
Bromochloromethane	ND		ug/kg	240	--	1
Tetrahydrofuran	ND		ug/kg	970	--	1
2,2-Dichloropropane	ND		ug/kg	240	--	1
1,2-Dibromoethane	ND		ug/kg	190	--	1
1,3-Dichloropropane	ND		ug/kg	240	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	48	--	1
Bromobenzene	ND		ug/kg	240	--	1
n-Butylbenzene	ND		ug/kg	48	--	1
sec-Butylbenzene	ND		ug/kg	48	--	1
tert-Butylbenzene	ND		ug/kg	240	--	1
o-Chlorotoluene	ND		ug/kg	240	--	1
p-Chlorotoluene	ND		ug/kg	240	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	240	--	1
Hexachlorobutadiene	ND		ug/kg	240	--	1
Isopropylbenzene	ND		ug/kg	48	--	1
p-Isopropyltoluene	ND		ug/kg	48	--	1
Naphthalene	ND		ug/kg	240	--	1
n-Propylbenzene	ND		ug/kg	48	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	240	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	240	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	240	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	240	--	1
Ethyl ether	ND		ug/kg	240	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	93		70-130

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 14:06
Analyst: BN
Percent Solids: 84%

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	650	--	1
1,1-Dichloroethane	ND		ug/kg	98	--	1
Chloroform	ND		ug/kg	98	--	1
Carbon tetrachloride	ND		ug/kg	65	--	1
1,2-Dichloropropane	ND		ug/kg	230	--	1
Dibromochloromethane	ND		ug/kg	65	--	1
1,1,2-Trichloroethane	ND		ug/kg	98	--	1
Tetrachloroethene	ND		ug/kg	65	--	1
Chlorobenzene	ND		ug/kg	65	--	1
Trichlorofluoromethane	ND		ug/kg	320	--	1
1,2-Dichloroethane	ND		ug/kg	65	--	1
1,1,1-Trichloroethane	ND		ug/kg	65	--	1
Bromodichloromethane	ND		ug/kg	65	--	1
trans-1,3-Dichloropropene	ND		ug/kg	65	--	1
cis-1,3-Dichloropropene	ND		ug/kg	65	--	1
1,3-Dichloropropene, Total	ND		ug/kg	65	--	1
1,1-Dichloropropene	ND		ug/kg	320	--	1
Bromoform	ND		ug/kg	260	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	65	--	1
Benzene	ND		ug/kg	65	--	1
Toluene	ND		ug/kg	98	--	1
Ethylbenzene	ND		ug/kg	65	--	1
Chloromethane	ND		ug/kg	320	--	1
Bromomethane	ND		ug/kg	130	--	1
Vinyl chloride	ND		ug/kg	130	--	1
Chloroethane	ND		ug/kg	130	--	1
1,1-Dichloroethene	ND		ug/kg	65	--	1
trans-1,2-Dichloroethene	ND		ug/kg	98	--	1
Trichloroethene	ND		ug/kg	65	--	1
1,2-Dichlorobenzene	ND		ug/kg	320	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-05**Date Collected:** 08/26/16 11:45**Client ID:** 1607530-B101(S1-S2)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	320	--	1
1,4-Dichlorobenzene	ND		ug/kg	320	--	1
Methyl tert butyl ether	ND		ug/kg	130	--	1
p/m-Xylene	ND		ug/kg	130	--	1
o-Xylene	ND		ug/kg	130	--	1
Xylenes, Total	ND		ug/kg	130	--	1
cis-1,2-Dichloroethene	ND		ug/kg	65	--	1
1,2-Dichloroethene, Total	ND		ug/kg	65	--	1
Dibromomethane	ND		ug/kg	650	--	1
1,4-Dichlorobutane	ND		ug/kg	650	--	1
1,2,3-Trichloropropane	ND		ug/kg	650	--	1
Styrene	ND		ug/kg	130	--	1
Dichlorodifluoromethane	ND		ug/kg	650	--	1
Acetone	ND		ug/kg	2300	--	1
Carbon disulfide	ND		ug/kg	650	--	1
2-Butanone	ND		ug/kg	650	--	1
Vinyl acetate	ND		ug/kg	650	--	1
4-Methyl-2-pentanone	ND		ug/kg	650	--	1
2-Hexanone	ND		ug/kg	650	--	1
Ethyl methacrylate	ND		ug/kg	650	--	1
Acrylonitrile	ND		ug/kg	260	--	1
Bromochloromethane	ND		ug/kg	320	--	1
Tetrahydrofuran	ND		ug/kg	1300	--	1
2,2-Dichloropropane	ND		ug/kg	320	--	1
1,2-Dibromoethane	ND		ug/kg	260	--	1
1,3-Dichloropropane	ND		ug/kg	320	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	65	--	1
Bromobenzene	ND		ug/kg	320	--	1
n-Butylbenzene	ND		ug/kg	65	--	1
sec-Butylbenzene	ND		ug/kg	65	--	1
tert-Butylbenzene	ND		ug/kg	320	--	1
o-Chlorotoluene	ND		ug/kg	320	--	1
p-Chlorotoluene	ND		ug/kg	320	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	320	--	1
Hexachlorobutadiene	ND		ug/kg	320	--	1
Isopropylbenzene	ND		ug/kg	65	--	1
p-Isopropyltoluene	ND		ug/kg	65	--	1
Naphthalene	ND		ug/kg	320	--	1
n-Propylbenzene	ND		ug/kg	65	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	320	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	320	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	320	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	320	--	1
Ethyl ether	ND		ug/kg	320	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	94		70-130

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/05/16 14:33
Analyst: BN
Percent Solids: 81%

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	480	--	1
1,1-Dichloroethane	ND		ug/kg	71	--	1
Chloroform	ND		ug/kg	71	--	1
Carbon tetrachloride	ND		ug/kg	48	--	1
1,2-Dichloropropane	ND		ug/kg	170	--	1
Dibromochloromethane	ND		ug/kg	48	--	1
1,1,2-Trichloroethane	ND		ug/kg	71	--	1
Tetrachloroethene	ND		ug/kg	48	--	1
Chlorobenzene	ND		ug/kg	48	--	1
Trichlorofluoromethane	ND		ug/kg	240	--	1
1,2-Dichloroethane	ND		ug/kg	48	--	1
1,1,1-Trichloroethane	ND		ug/kg	48	--	1
Bromodichloromethane	ND		ug/kg	48	--	1
trans-1,3-Dichloropropene	ND		ug/kg	48	--	1
cis-1,3-Dichloropropene	ND		ug/kg	48	--	1
1,3-Dichloropropene, Total	ND		ug/kg	48	--	1
1,1-Dichloropropene	ND		ug/kg	240	--	1
Bromoform	ND		ug/kg	190	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	48	--	1
Benzene	ND		ug/kg	48	--	1
Toluene	ND		ug/kg	71	--	1
Ethylbenzene	ND		ug/kg	48	--	1
Chloromethane	ND		ug/kg	240	--	1
Bromomethane	ND		ug/kg	95	--	1
Vinyl chloride	ND		ug/kg	95	--	1
Chloroethane	ND		ug/kg	95	--	1
1,1-Dichloroethene	ND		ug/kg	48	--	1
trans-1,2-Dichloroethene	ND		ug/kg	71	--	1
Trichloroethene	ND		ug/kg	48	--	1
1,2-Dichlorobenzene	ND		ug/kg	240	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-06**Date Collected:** 08/26/16 12:00**Client ID:** 1607530-B101(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	240	--	1
1,4-Dichlorobenzene	ND		ug/kg	240	--	1
Methyl tert butyl ether	ND		ug/kg	95	--	1
p/m-Xylene	ND		ug/kg	95	--	1
o-Xylene	ND		ug/kg	95	--	1
Xylenes, Total	ND		ug/kg	95	--	1
cis-1,2-Dichloroethene	ND		ug/kg	48	--	1
1,2-Dichloroethene, Total	ND		ug/kg	48	--	1
Dibromomethane	ND		ug/kg	480	--	1
1,4-Dichlorobutane	ND		ug/kg	480	--	1
1,2,3-Trichloropropane	ND		ug/kg	480	--	1
Styrene	ND		ug/kg	95	--	1
Dichlorodifluoromethane	ND		ug/kg	480	--	1
Acetone	ND		ug/kg	1700	--	1
Carbon disulfide	ND		ug/kg	480	--	1
2-Butanone	ND		ug/kg	480	--	1
Vinyl acetate	ND		ug/kg	480	--	1
4-Methyl-2-pentanone	ND		ug/kg	480	--	1
2-Hexanone	ND		ug/kg	480	--	1
Ethyl methacrylate	ND		ug/kg	480	--	1
Acrylonitrile	ND		ug/kg	190	--	1
Bromochloromethane	ND		ug/kg	240	--	1
Tetrahydrofuran	ND		ug/kg	950	--	1
2,2-Dichloropropane	ND		ug/kg	240	--	1
1,2-Dibromoethane	ND		ug/kg	190	--	1
1,3-Dichloropropane	ND		ug/kg	240	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	48	--	1
Bromobenzene	ND		ug/kg	240	--	1
n-Butylbenzene	ND		ug/kg	48	--	1
sec-Butylbenzene	ND		ug/kg	48	--	1
tert-Butylbenzene	ND		ug/kg	240	--	1
o-Chlorotoluene	ND		ug/kg	240	--	1
p-Chlorotoluene	ND		ug/kg	240	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	240	--	1
Hexachlorobutadiene	ND		ug/kg	240	--	1
Isopropylbenzene	ND		ug/kg	48	--	1
p-Isopropyltoluene	ND		ug/kg	48	--	1
Naphthalene	ND		ug/kg	240	--	1
n-Propylbenzene	ND		ug/kg	48	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	240	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	240	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	240	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	240	--	1
Ethyl ether	ND		ug/kg	240	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	93		70-130

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/05/16 08:21
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG929175-5					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
2-Chloroethylvinyl ether	ND		ug/kg	1000	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	250	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	250	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	250	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/05/16 08:21
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG929175-5					
Trichloroethene	ND		ug/kg	50	--
1,2-Dichlorobenzene	ND		ug/kg	250	--
1,3-Dichlorobenzene	ND		ug/kg	250	--
1,4-Dichlorobenzene	ND		ug/kg	250	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	500	--
1,4-Dichlorobutane	ND		ug/kg	500	--
1,2,3-Trichloropropane	ND		ug/kg	500	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	500	--
2-Butanone	ND		ug/kg	500	--
Vinyl acetate	ND		ug/kg	500	--
4-Methyl-2-pentanone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Ethyl methacrylate	ND		ug/kg	500	--
Acrolein	ND		ug/kg	1200	--
Acrylonitrile	ND		ug/kg	200	--
Bromochloromethane	ND		ug/kg	250	--
Tetrahydrofuran	ND		ug/kg	1000	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	250	--

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/05/16 08:21
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG929175-5					
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	250	--
1,3,5-Trichlorobenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	250	--
p-Chlorotoluene	ND		ug/kg	250	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	--
Hexachlorobutadiene	ND		ug/kg	250	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	250	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	250	--
1,2,4-Trichlorobenzene	ND		ug/kg	250	--
1,3,5-Trimethylbenzene	ND		ug/kg	250	--
1,2,4-Trimethylbenzene	ND		ug/kg	250	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	--
Halothane	ND		ug/kg	2000	--
Ethyl ether	ND		ug/kg	250	--
Methyl Acetate	ND		ug/kg	1000	--
Ethyl Acetate	ND		ug/kg	1000	--
Isopropyl Ether	ND		ug/kg	200	--
Cyclohexane	ND		ug/kg	1000	--
Tert-Butyl Alcohol	ND		ug/kg	5000	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/05/16 08:21
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG929175-5					
Methyl cyclohexane	ND		ug/kg	200	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	1000	--
p-Diethylbenzene	ND		ug/kg	200	--
4-Ethyltoluene	ND		ug/kg	200	--
1,2,4,5-Tetramethylbenzene	ND		ug/kg	200	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG929175-3 WG929175-4								
Methylene chloride	89		87		70-130	2		30
1,1-Dichloroethane	96		95		70-130	1		30
Chloroform	95		93		70-130	2		30
Carbon tetrachloride	93		91		70-130	2		30
1,2-Dichloropropane	94		92		70-130	2		30
Dibromochloromethane	92		92		70-130	0		30
1,1,2-Trichloroethane	94		93		70-130	1		30
2-Chloroethylvinyl ether	94		93		70-130	1		30
Tetrachloroethene	103		98		70-130	5		30
Chlorobenzene	96		94		70-130	2		30
Trichlorofluoromethane	112		107		70-139	5		30
1,2-Dichloroethane	93		92		70-130	1		30
1,1,1-Trichloroethane	95		93		70-130	2		30
Bromodichloromethane	92		89		70-130	3		30
trans-1,3-Dichloropropene	96		94		70-130	2		30
cis-1,3-Dichloropropene	95		95		70-130	0		30
1,1-Dichloropropene	107		104		70-130	3		30
Bromoform	83		83		70-130	0		30
1,1,2,2-Tetrachloroethane	94		93		70-130	1		30
Benzene	97		94		70-130	3		30
Toluene	97		94		70-130	3		30

Lab Control Sample Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG929175-3 WG929175-4								
Ethylbenzene	99		95		70-130	4		30
Chloromethane	115		111		52-130	4		30
Bromomethane	109		103		57-147	6		30
Vinyl chloride	104		99		67-130	5		30
Chloroethane	112		104		50-151	7		30
1,1-Dichloroethene	89		85		65-135	5		30
trans-1,2-Dichloroethene	99		95		70-130	4		30
Trichloroethene	98		94		70-130	4		30
1,2-Dichlorobenzene	99		98		70-130	1		30
1,3-Dichlorobenzene	100		98		70-130	2		30
1,4-Dichlorobenzene	99		97		70-130	2		30
Methyl tert butyl ether	92		91		66-130	1		30
p/m-Xylene	101		97		70-130	4		30
o-Xylene	101		98		70-130	3		30
cis-1,2-Dichloroethene	97		94		70-130	3		30
Dibromomethane	91		90		70-130	1		30
1,4-Dichlorobutane	94		92		70-130	2		30
1,2,3-Trichloropropane	94		94		68-130	0		30
Styrene	100		97		70-130	3		30
Dichlorodifluoromethane	118		112		30-146	5		30
Acetone	86		86		54-140	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG929175-3 WG929175-4								
Carbon disulfide	73		72		59-130	1		30
2-Butanone	77		78		70-130	1		30
Vinyl acetate	95		96		70-130	1		30
4-Methyl-2-pentanone	89		88		70-130	1		30
2-Hexanone	86		86		70-130	0		30
Ethyl methacrylate	84		83		70-130	1		30
Acrolein	44	Q	47	Q	70-130	7		30
Acrylonitrile	84		83		70-130	1		30
Bromochloromethane	97		95		70-130	2		30
Tetrahydrofuran	84		85		66-130	1		30
2,2-Dichloropropane	97		94		70-130	3		30
1,2-Dibromoethane	94		92		70-130	2		30
1,3-Dichloropropane	96		94		69-130	2		30
1,1,1,2-Tetrachloroethane	95		93		70-130	2		30
Bromobenzene	100		97		70-130	3		30
n-Butylbenzene	109		106		70-130	3		30
sec-Butylbenzene	104		101		70-130	3		30
tert-Butylbenzene	103		100		70-130	3		30
1,3,5-Trichlorobenzene	104		102		70-139	2		30
o-Chlorotoluene	98		95		70-130	3		30
p-Chlorotoluene	98		97		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG929175-3 WG929175-4								
1,2-Dibromo-3-chloropropane	84		87		68-130	4		30
Hexachlorobutadiene	107		104		67-130	3		30
Isopropylbenzene	102		98		70-130	4		30
p-Isopropyltoluene	106		103		70-130	3		30
Naphthalene	96		95		70-130	1		30
n-Propylbenzene	104		101		70-130	3		30
1,2,3-Trichlorobenzene	101		100		70-130	1		30
1,2,4-Trichlorobenzene	103		102		70-130	1		30
1,3,5-Trimethylbenzene	102		98		70-130	4		30
1,2,4-Trimethylbenzene	103		101		70-130	2		30
trans-1,4-Dichloro-2-butene	90		90		70-130	0		30
Halothane	107		105		70-130	2		20
Ethyl ether	105		102		67-130	3		30
Methyl Acetate	101		100		65-130	1		30
Ethyl Acetate	92		94		70-130	2		30
Isopropyl Ether	93		92		66-130	1		30
Cyclohexane	108		105		70-130	3		30
Tert-Butyl Alcohol	76		76		70-130	0		30
Ethyl-Tert-Butyl-Ether	94		93		70-130	1		30
Tertiary-Amyl Methyl Ether	91		90		70-130	1		30
1,4-Dioxane	78		75		65-136	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG929175-3 WG929175-4								
Methyl cyclohexane	114		109		70-130	4		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	101		96		70-130	5		30
p-Diethylbenzene	107		104		70-130	3		30
4-Ethyltoluene	109		105		70-130	4		30
1,2,4,5-Tetramethylbenzene	105		103		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	100		100		70-130

SEMIVOLATILES

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 04:52
Analyst: KV
Percent Solids: 93%

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	580	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
1,2-Dichlorobenzene	ND		ug/kg	180	--	1
1,3-Dichlorobenzene	ND		ug/kg	180	--	1
1,4-Dichlorobenzene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Azobenzene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	110	--	1
Biphenyl	ND		ug/kg	400	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
1-Methylnaphthalene	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
n-Nitrosodimethylamine	ND		ug/kg	350	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	850	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	570	--	1
Benzyl Alcohol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Pyridine	ND		ug/kg	710	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	98		25-120
Phenol-d6	101		10-120
Nitrobenzene-d5	103		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	89		10-136
4-Terphenyl-d14	84		18-120

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 05:18
Analyst: KV
Percent Solids: 92%

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	580	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
1,2-Dichlorobenzene	ND		ug/kg	180	--	1
1,3-Dichlorobenzene	ND		ug/kg	180	--	1
1,4-Dichlorobenzene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Azobenzene	ND		ug/kg	180	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-02**Date Collected:** 08/26/16 09:55**Client ID:** 1607530-B103(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	400	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
1-Methylnaphthalene	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
n-Nitrosodimethylamine	ND		ug/kg	350	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	840	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	570	--	1
Benzyl Alcohol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Pyridine	ND		ug/kg	700	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	93		25-120
Phenol-d6	98		10-120
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	93		18-120

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 05:43
Analyst: KV
Percent Solids: 84%

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	--	1
Benzidine	ND		ug/kg	640	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	--	1
2-Chloronaphthalene	ND		ug/kg	190	--	1
1,2-Dichlorobenzene	ND		ug/kg	190	--	1
1,3-Dichlorobenzene	ND		ug/kg	190	--	1
1,4-Dichlorobenzene	ND		ug/kg	190	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	--	1
2,4-Dinitrotoluene	ND		ug/kg	190	--	1
2,6-Dinitrotoluene	ND		ug/kg	190	--	1
Azobenzene	ND		ug/kg	190	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	--	1
Hexachlorobutadiene	ND		ug/kg	190	--	1
Hexachlorocyclopentadiene	ND		ug/kg	550	--	1
Hexachloroethane	ND		ug/kg	150	--	1
Isophorone	ND		ug/kg	170	--	1
Naphthalene	ND		ug/kg	190	--	1
Nitrobenzene	ND		ug/kg	170	--	1
NDPA/DPA	ND		ug/kg	150	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	--	1
Butyl benzyl phthalate	ND		ug/kg	190	--	1
Di-n-butylphthalate	ND		ug/kg	190	--	1
Di-n-octylphthalate	ND		ug/kg	190	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS**

Lab ID: L1627010-03
 Client ID: 1607530-B102(S1-S2)
 Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 10:45
 Date Received: 08/29/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	--	1
Dimethyl phthalate	ND		ug/kg	190	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	150	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	150	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	150	--	1
Fluorene	ND		ug/kg	190	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	--	1
Pyrene	ND		ug/kg	120	--	1
Biphenyl	ND		ug/kg	440	--	1
Aniline	ND		ug/kg	230	--	1
4-Chloroaniline	ND		ug/kg	190	--	1
1-Methylnaphthalene	ND		ug/kg	190	--	1
2-Nitroaniline	ND		ug/kg	190	--	1
3-Nitroaniline	ND		ug/kg	190	--	1
4-Nitroaniline	ND		ug/kg	190	--	1
Dibenzofuran	ND		ug/kg	190	--	1
2-Methylnaphthalene	ND		ug/kg	230	--	1
n-Nitrosodimethylamine	ND		ug/kg	390	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
p-Chloro-m-cresol	ND		ug/kg	190	--	1
2-Chlorophenol	ND		ug/kg	190	--	1
2,4-Dichlorophenol	ND		ug/kg	170	--	1
2,4-Dimethylphenol	ND		ug/kg	190	--	1
2-Nitrophenol	ND		ug/kg	420	--	1
4-Nitrophenol	ND		ug/kg	270	--	1
2,4-Dinitrophenol	ND		ug/kg	930	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	--	1
Pentachlorophenol	ND		ug/kg	150	--	1
Phenol	ND		ug/kg	190	--	1
2-Methylphenol	ND		ug/kg	190	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	--	1
2,4,5-Trichlorophenol	ND		ug/kg	190	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	630	--	1
Benzyl Alcohol	ND		ug/kg	190	--	1
Carbazole	ND		ug/kg	190	--	1
Pyridine	ND		ug/kg	770	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	89		25-120
Phenol-d6	93		10-120
Nitrobenzene-d5	96		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	86		18-120

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 06:08
Analyst: KV
Percent Solids: 79%

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	--	1
Benzidine	ND		ug/kg	690	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	--	1
2-Chloronaphthalene	ND		ug/kg	210	--	1
1,2-Dichlorobenzene	ND		ug/kg	210	--	1
1,3-Dichlorobenzene	ND		ug/kg	210	--	1
1,4-Dichlorobenzene	ND		ug/kg	210	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	--	1
2,4-Dinitrotoluene	ND		ug/kg	210	--	1
2,6-Dinitrotoluene	ND		ug/kg	210	--	1
Azobenzene	ND		ug/kg	210	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	--	1
Hexachlorobutadiene	ND		ug/kg	210	--	1
Hexachlorocyclopentadiene	ND		ug/kg	600	--	1
Hexachloroethane	ND		ug/kg	170	--	1
Isophorone	ND		ug/kg	190	--	1
Naphthalene	ND		ug/kg	210	--	1
Nitrobenzene	ND		ug/kg	190	--	1
NDPA/DPA	ND		ug/kg	170	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	--	1
Butyl benzyl phthalate	ND		ug/kg	210	--	1
Di-n-butylphthalate	ND		ug/kg	210	--	1
Di-n-octylphthalate	ND		ug/kg	210	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-04**Date Collected:** 08/26/16 11:00**Client ID:** 1607530-B102(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	210	--	1
Dimethyl phthalate	ND		ug/kg	210	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	170	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	170	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	170	--	1
Fluorene	ND		ug/kg	210	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	--	1
Pyrene	ND		ug/kg	120	--	1
Biphenyl	ND		ug/kg	480	--	1
Aniline	ND		ug/kg	250	--	1
4-Chloroaniline	ND		ug/kg	210	--	1
1-Methylnaphthalene	ND		ug/kg	210	--	1
2-Nitroaniline	ND		ug/kg	210	--	1
3-Nitroaniline	ND		ug/kg	210	--	1
4-Nitroaniline	ND		ug/kg	210	--	1
Dibenzofuran	ND		ug/kg	210	--	1
2-Methylnaphthalene	ND		ug/kg	250	--	1
n-Nitrosodimethylamine	ND		ug/kg	420	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
p-Chloro-m-cresol	ND		ug/kg	210	--	1
2-Chlorophenol	ND		ug/kg	210	--	1
2,4-Dichlorophenol	ND		ug/kg	190	--	1
2,4-Dimethylphenol	ND		ug/kg	210	--	1
2-Nitrophenol	ND		ug/kg	450	--	1
4-Nitrophenol	ND		ug/kg	290	--	1
2,4-Dinitrophenol	ND		ug/kg	1000	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	--	1
Pentachlorophenol	ND		ug/kg	170	--	1
Phenol	ND		ug/kg	210	--	1
2-Methylphenol	ND		ug/kg	210	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	--	1
2,4,5-Trichlorophenol	ND		ug/kg	210	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	680	--	1
Benzyl Alcohol	ND		ug/kg	210	--	1
Carbazole	ND		ug/kg	210	--	1
Pyridine	ND		ug/kg	830	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	91		25-120
Phenol-d6	94		10-120
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	82		18-120

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 06:34
Analyst: KV
Percent Solids: 84%

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	--	1
Benzidine	ND		ug/kg	640	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	--	1
2-Chloronaphthalene	ND		ug/kg	200	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	--	1
2,4-Dinitrotoluene	ND		ug/kg	200	--	1
2,6-Dinitrotoluene	ND		ug/kg	200	--	1
Azobenzene	ND		ug/kg	200	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
Hexachlorocyclopentadiene	ND		ug/kg	560	--	1
Hexachloroethane	ND		ug/kg	160	--	1
Isophorone	ND		ug/kg	180	--	1
Naphthalene	ND		ug/kg	200	--	1
Nitrobenzene	ND		ug/kg	180	--	1
NDPA/DPA	ND		ug/kg	160	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	--	1
Butyl benzyl phthalate	ND		ug/kg	200	--	1
Di-n-butylphthalate	ND		ug/kg	200	--	1
Di-n-octylphthalate	ND		ug/kg	200	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-05**Date Collected:** 08/26/16 11:45**Client ID:** 1607530-B101(S1-S2)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	--	1
Dimethyl phthalate	ND		ug/kg	200	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	160	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	160	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	160	--	1
Fluorene	ND		ug/kg	200	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	--	1
Pyrene	ND		ug/kg	120	--	1
Biphenyl	ND		ug/kg	440	--	1
Aniline	ND		ug/kg	230	--	1
4-Chloroaniline	ND		ug/kg	200	--	1
1-Methylnaphthalene	ND		ug/kg	200	--	1
2-Nitroaniline	ND		ug/kg	200	--	1
3-Nitroaniline	ND		ug/kg	200	--	1
4-Nitroaniline	ND		ug/kg	200	--	1
Dibenzofuran	ND		ug/kg	200	--	1
2-Methylnaphthalene	ND		ug/kg	230	--	1
n-Nitrosodimethylamine	ND		ug/kg	390	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
p-Chloro-m-cresol	ND		ug/kg	200	--	1
2-Chlorophenol	ND		ug/kg	200	--	1
2,4-Dichlorophenol	ND		ug/kg	180	--	1
2,4-Dimethylphenol	ND		ug/kg	200	--	1
2-Nitrophenol	ND		ug/kg	420	--	1
4-Nitrophenol	ND		ug/kg	270	--	1
2,4-Dinitrophenol	ND		ug/kg	940	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	--	1
Pentachlorophenol	ND		ug/kg	160	--	1
Phenol	ND		ug/kg	200	--	1
2-Methylphenol	ND		ug/kg	200	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	--	1
2,4,5-Trichlorophenol	ND		ug/kg	200	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	630	--	1
Benzyl Alcohol	ND		ug/kg	200	--	1
Carbazole	ND		ug/kg	200	--	1
Pyridine	ND		ug/kg	780	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	87		18-120

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/02/16 07:00
Analyst: KV
Percent Solids: 81%

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	--	1
Benzidine	ND		ug/kg	660	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	--	1
2-Chloronaphthalene	ND		ug/kg	200	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	--	1
2,4-Dinitrotoluene	ND		ug/kg	200	--	1
2,6-Dinitrotoluene	ND		ug/kg	200	--	1
Azobenzene	ND		ug/kg	200	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
Hexachlorocyclopentadiene	ND		ug/kg	580	--	1
Hexachloroethane	ND		ug/kg	160	--	1
Isophorone	ND		ug/kg	180	--	1
Naphthalene	ND		ug/kg	200	--	1
Nitrobenzene	ND		ug/kg	180	--	1
NDPA/DPA	ND		ug/kg	160	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	--	1
Butyl benzyl phthalate	ND		ug/kg	200	--	1
Di-n-butylphthalate	ND		ug/kg	200	--	1
Di-n-octylphthalate	ND		ug/kg	200	--	1

Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-06**Date Collected:** 08/26/16 12:00**Client ID:** 1607530-B101(S3-S4)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	--	1
Dimethyl phthalate	ND		ug/kg	200	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	160	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	160	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	160	--	1
Fluorene	ND		ug/kg	200	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	--	1
Pyrene	ND		ug/kg	120	--	1
Biphenyl	ND		ug/kg	460	--	1
Aniline	ND		ug/kg	240	--	1
4-Chloroaniline	ND		ug/kg	200	--	1
1-Methylnaphthalene	ND		ug/kg	200	--	1
2-Nitroaniline	ND		ug/kg	200	--	1
3-Nitroaniline	ND		ug/kg	200	--	1
4-Nitroaniline	ND		ug/kg	200	--	1
Dibenzofuran	ND		ug/kg	200	--	1
2-Methylnaphthalene	ND		ug/kg	240	--	1
n-Nitrosodimethylamine	ND		ug/kg	400	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
p-Chloro-m-cresol	ND		ug/kg	200	--	1
2-Chlorophenol	ND		ug/kg	200	--	1
2,4-Dichlorophenol	ND		ug/kg	180	--	1
2,4-Dimethylphenol	ND		ug/kg	200	--	1
2-Nitrophenol	ND		ug/kg	440	--	1
4-Nitrophenol	ND		ug/kg	280	--	1
2,4-Dinitrophenol	ND		ug/kg	970	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	--	1
Pentachlorophenol	ND		ug/kg	160	--	1
Phenol	ND		ug/kg	200	--	1
2-Methylphenol	ND		ug/kg	200	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	--	1
2,4,5-Trichlorophenol	ND		ug/kg	200	--	1

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	650	--	1
Benzyl Alcohol	ND		ug/kg	200	--	1
Carbazole	ND		ug/kg	200	--	1
Pyridine	ND		ug/kg	810	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	111		25-120
Phenol-d6	115		10-120
Nitrobenzene-d5	120		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	90		18-120

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/02/16 03:36
 Analyst: KV

Extraction Method: EPA 3546
 Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG927494-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	540	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	98	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	98	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	470	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
NDPA/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/02/16 03:36
 Analyst: KV

Extraction Method: EPA 3546
 Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG927494-1					
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	98	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	98	--
Benzo(k)fluoranthene	ND		ug/kg	98	--
Chrysene	ND		ug/kg	98	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	98	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	98	--
Dibenzo(a,h)anthracene	ND		ug/kg	98	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	98	--
Biphenyl	ND		ug/kg	370	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
1-Methylnaphthalene	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
n-Nitrosodimethylamine	ND		ug/kg	330	--
2,4,6-Trichlorophenol	ND		ug/kg	98	--
p-Chloro-m-cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/02/16 03:36
 Analyst: KV

Extraction Method: EPA 3546
 Extraction Date: 08/31/16 00:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG927494-1					
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	350	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	780	--
4,6-Dinitro-o-cresol	ND		ug/kg	420	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Benzoic Acid	ND		ug/kg	530	--
Benzyl Alcohol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Pyridine	ND		ug/kg	650	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	67		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG927494-2 WG927494-3								
Acenaphthene	74		75		31-137	1		50
Benzidine	52		47		10-66	10		50
1,2,4-Trichlorobenzene	73		82		38-107	12		50
Hexachlorobenzene	74		74		40-140	0		50
Bis(2-chloroethyl)ether	75		85		40-140	13		50
2-Chloronaphthalene	74		75		40-140	1		50
1,2-Dichlorobenzene	69		83		40-140	18		50
1,3-Dichlorobenzene	67		80		40-140	18		50
1,4-Dichlorobenzene	68		82		28-104	19		50
3,3'-Dichlorobenzidine	82		76		40-140	8		50
2,4-Dinitrotoluene	96	Q	93	Q	28-89	3		50
2,6-Dinitrotoluene	83		84		40-140	1		50
Azobenzene	76		77		40-140	1		50
Fluoranthene	80		77		40-140	4		50
4-Chlorophenyl phenyl ether	75		75		40-140	0		50
4-Bromophenyl phenyl ether	74		75		40-140	1		50
Bis(2-chloroisopropyl)ether	73		80		40-140	9		50
Bis(2-chloroethoxy)methane	77		84		40-117	9		50
Hexachlorobutadiene	71		77		40-140	8		50
Hexachlorocyclopentadiene	89		93		40-140	4		50
Hexachloroethane	73		88		40-140	19		50

Lab Control Sample Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG927494-2 WG927494-3								
Isophorone	82		89		40-140	8		50
Naphthalene	73		79		40-140	8		50
Nitrobenzene	89		100		40-140	12		50
NDPA/DPA	76		77		36-157	1		50
n-Nitrosodi-n-propylamine	86		92		32-121	7		50
Bis(2-ethylhexyl)phthalate	88		84		40-140	5		50
Butyl benzyl phthalate	95		91		40-140	4		50
Di-n-butylphthalate	89		85		40-140	5		50
Di-n-octylphthalate	98		95		40-140	3		50
Diethyl phthalate	82		79		40-140	4		50
Dimethyl phthalate	83		81		40-140	2		50
Benzo(a)anthracene	79		77		40-140	3		50
Benzo(a)pyrene	86		84		40-140	2		50
Benzo(b)fluoranthene	81		80		40-140	1		50
Benzo(k)fluoranthene	81		75		40-140	8		50
Chrysene	76		74		40-140	3		50
Acenaphthylene	80		81		40-140	1		50
Anthracene	81		80		40-140	1		50
Benzo(ghi)perylene	82		80		40-140	2		50
Fluorene	77		77		40-140	0		50
Phenanthrene	72		72		40-140	0		50

Lab Control Sample Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG927494-2 WG927494-3								
Dibenzo(a,h)anthracene	84		83		40-140	1		50
Indeno(1,2,3-cd)pyrene	84		83		40-140	1		50
Pyrene	77		74		35-142	4		50
Biphenyl	80		81		54-104	1		50
Aniline	64		69		40-140	8		50
4-Chloroaniline	66		74		40-140	11		50
1-Methylnaphthalene	72		78		26-130	8		50
2-Nitroaniline	91		91		47-134	0		50
3-Nitroaniline	84		79		26-129	6		50
4-Nitroaniline	86		83		41-125	4		50
Dibenzofuran	75		76		40-140	1		50
2-Methylnaphthalene	74		78		40-140	5		50
1,2,4,5-Tetrachlorobenzene	75		80		40-117	6		50
Acetophenone	83		91		14-144	9		50
n-Nitrosodimethylamine	69		83		22-100	18		50
2,4,6-Trichlorophenol	84		83		30-130	1		50
p-Chloro-m-cresol	90		91		26-103	1		50
2-Chlorophenol	87		99		25-102	13		50
2,4-Dichlorophenol	94		97		30-130	3		50
2,4-Dimethylphenol	95		105		30-130	10		50
2-Nitrophenol	113		123		30-130	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG927494-2 WG927494-3								
4-Nitrophenol	85		83		11-114	2		50
2,4-Dinitrophenol	118		109		4-130	8		50
4,6-Dinitro-o-cresol	126		120		10-130	5		50
Pentachlorophenol	76		76		17-109	0		50
Phenol	81		90		26-90	11		50
2-Methylphenol	88		95		30-130.	8		50
3-Methylphenol/4-Methylphenol	86		91		30-130	6		50
2,4,5-Trichlorophenol	92		93		30-130	1		50
Benzoic Acid	45		45		10-110	0		50
Benzyl Alcohol	85		94		40-140	10		50
Carbazole	79		76		54-128	4		50
Pyridine	54		72		10-93	29		50
Parathion, ethyl	135		131		40-140	3		50
Atrazine	97		97		40-140	0		50
Benzaldehyde	63		75		40-140	17		50
Caprolactam	90		89		15-130	1		50
2,3,4,6-Tetrachlorophenol	88		86		40-140	2		50

Lab Control Sample Analysis**Batch Quality Control****Project Name:** EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG927494-2 WG927494-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	86		97		25-120
Phenol-d6	87		97		10-120
Nitrobenzene-d5	95		102		23-120
2-Fluorobiphenyl	75		76		30-120
2,4,6-Tribromophenol	80		81		10-136
4-Terphenyl-d14	77		74		18-120

PETROLEUM HYDROCARBONS

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
 Client ID: 1607530-B103(S1-S2)
 Sample Location: NEWINGTON, NH
 Matrix: Soil
 Analytical Method: 1,8015C(M)
 Analytical Date: 09/01/16 20:20
 Analyst: DV
 Percent Solids: 93%

Date Collected: 08/26/16 09:25
 Date Received: 08/29/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	ND		ug/kg	35500	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	54		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 20:53
Analyst: DV
Percent Solids: 92%

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	ND		ug/kg	34100	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	81		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 21:25
Analyst: DV
Percent Solids: 84%

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	ND		ug/kg	39500	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	83		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 21:57
Analyst: DV
Percent Solids: 79%

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	ND		ug/kg	39900	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	78		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 22:29
Analyst: DV
Percent Solids: 84%

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	39000		ug/kg	37500	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	82		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 23:01
Analyst: DV
Percent Solids: 81%

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 20:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab						
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TPH	ND		ug/kg	39800	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	79		40-140

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 09/01/16 17:08
Analyst: SR

Extraction Method: EPA 3546
Extraction Date: 08/31/16 19:47

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-06 Batch: WG927867-1					
TPH	ND		ug/kg	33000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	85		40-140

Lab Control Sample Analysis**Batch Quality Control****Project Name:** EVERSOURCE NH SRP**Project Number:** 1607530**Lab Number:** L1627010**Report Date:** 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-06 Batch: WG927867-2								
TPH	92		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	89				40-140

PCBS

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/02/16 22:16
Analyst: JA
Percent Solids: 93%

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 18:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/01/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/01/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.9	--	1	A
Aroclor 1221	ND		ug/kg	33.9	--	1	A
Aroclor 1232	ND		ug/kg	33.9	--	1	A
Aroclor 1242	ND		ug/kg	33.9	--	1	A
Aroclor 1248	ND		ug/kg	33.9	--	1	A
Aroclor 1254	ND		ug/kg	33.9	--	1	A
Aroclor 1260	ND		ug/kg	33.9	--	1	A
Aroclor 1262	ND		ug/kg	33.9	--	1	A
Aroclor 1268	ND		ug/kg	33.9	--	1	A
PCBs, Total	ND		ug/kg	33.9	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/02/16 22:31
Analyst: JA
Percent Solids: 92%

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 18:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/01/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/01/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.4	--	1	A
Aroclor 1221	ND		ug/kg	34.4	--	1	A
Aroclor 1232	ND		ug/kg	34.4	--	1	A
Aroclor 1242	ND		ug/kg	34.4	--	1	A
Aroclor 1248	ND		ug/kg	34.4	--	1	A
Aroclor 1254	ND		ug/kg	34.4	--	1	A
Aroclor 1260	ND		ug/kg	34.4	--	1	A
Aroclor 1262	ND		ug/kg	34.4	--	1	A
Aroclor 1268	ND		ug/kg	34.4	--	1	A
PCBs, Total	ND		ug/kg	34.4	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/02/16 22:45
Analyst: JA
Percent Solids: 84%

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 18:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/01/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/01/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.1	--	1	A
Aroclor 1221	ND		ug/kg	39.1	--	1	A
Aroclor 1232	ND		ug/kg	39.1	--	1	A
Aroclor 1242	ND		ug/kg	39.1	--	1	A
Aroclor 1248	ND		ug/kg	39.1	--	1	A
Aroclor 1254	ND		ug/kg	39.1	--	1	A
Aroclor 1260	ND		ug/kg	39.1	--	1	A
Aroclor 1262	ND		ug/kg	39.1	--	1	A
Aroclor 1268	ND		ug/kg	39.1	--	1	A
PCBs, Total	ND		ug/kg	39.1	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	93		30-150	B

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/04/16 16:48
Analyst: KEG
Percent Solids: 79%

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/04/16 06:18
Cleanup Method: EPA 3665A
Cleanup Date: 09/04/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/04/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.5	--	1	A
Aroclor 1221	ND		ug/kg	41.5	--	1	A
Aroclor 1232	ND		ug/kg	41.5	--	1	A
Aroclor 1242	ND		ug/kg	41.5	--	1	A
Aroclor 1248	ND		ug/kg	41.5	--	1	A
Aroclor 1254	ND		ug/kg	41.5	--	1	A
Aroclor 1260	ND		ug/kg	41.5	--	1	A
Aroclor 1262	ND		ug/kg	41.5	--	1	A
Aroclor 1268	ND		ug/kg	41.5	--	1	A
PCBs, Total	ND		ug/kg	41.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/02/16 23:14
Analyst: JA
Percent Solids: 84%

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/31/16 18:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/01/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/01/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.2	--	1	A
Aroclor 1221	ND		ug/kg	39.2	--	1	A
Aroclor 1232	ND		ug/kg	39.2	--	1	A
Aroclor 1242	ND		ug/kg	39.2	--	1	A
Aroclor 1248	ND		ug/kg	39.2	--	1	A
Aroclor 1254	ND		ug/kg	39.2	--	1	A
Aroclor 1260	ND		ug/kg	39.2	--	1	A
Aroclor 1262	ND		ug/kg	39.2	--	1	A
Aroclor 1268	ND		ug/kg	39.2	--	1	A
PCBs, Total	ND		ug/kg	39.2	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		30-150	B
Decachlorobiphenyl	113		30-150	B

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/04/16 17:04
Analyst: KEG
Percent Solids: 81%

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/04/16 06:18
Cleanup Method: EPA 3665A
Cleanup Date: 09/04/16
Cleanup Method: EPA 3660B
Cleanup Date: 09/04/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.0	--	1	A
Aroclor 1221	ND		ug/kg	40.0	--	1	A
Aroclor 1232	ND		ug/kg	40.0	--	1	A
Aroclor 1242	ND		ug/kg	40.0	--	1	A
Aroclor 1248	ND		ug/kg	40.0	--	1	A
Aroclor 1254	ND		ug/kg	40.0	--	1	A
Aroclor 1260	ND		ug/kg	40.0	--	1	A
Aroclor 1262	ND		ug/kg	40.0	--	1	A
Aroclor 1268	ND		ug/kg	40.0	--	1	A
PCBs, Total	ND		ug/kg	40.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	39		30-150	A
Decachlorobiphenyl	32		30-150	A
2,4,5,6-Tetrachloro-m-xylene	38		30-150	B
Decachlorobiphenyl	43		30-150	B

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 09/02/16 21:33
 Analyst: JA

Extraction Method: EPA 3546
 Extraction Date: 08/31/16 18:23
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/01/16
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/01/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 01-03,05 Batch: WG927841-1						
Aroclor 1016	ND		ug/kg	32.6	--	A
Aroclor 1221	ND		ug/kg	32.6	--	A
Aroclor 1232	ND		ug/kg	32.6	--	A
Aroclor 1242	ND		ug/kg	32.6	--	A
Aroclor 1248	ND		ug/kg	32.6	--	A
Aroclor 1254	ND		ug/kg	32.6	--	A
Aroclor 1260	ND		ug/kg	32.6	--	A
Aroclor 1262	ND		ug/kg	32.6	--	A
Aroclor 1268	ND		ug/kg	32.6	--	A
PCBs, Total	ND		ug/kg	32.6	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	93		30-150	B

Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 09/04/16 19:10
 Analyst: JA

Extraction Method: EPA 3546
 Extraction Date: 09/04/16 02:28
 Cleanup Method: EPA 3665A
 Cleanup Date: 09/04/16
 Cleanup Method: EPA 3660B
 Cleanup Date: 09/04/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 04,06 Batch: WG928866-1						
Aroclor 1016	ND		ug/kg	31.9	--	A
Aroclor 1221	ND		ug/kg	31.9	--	A
Aroclor 1232	ND		ug/kg	31.9	--	A
Aroclor 1242	ND		ug/kg	31.9	--	A
Aroclor 1248	ND		ug/kg	31.9	--	A
Aroclor 1254	ND		ug/kg	31.9	--	A
Aroclor 1260	ND		ug/kg	31.9	--	A
Aroclor 1262	ND		ug/kg	31.9	--	A
Aroclor 1268	ND		ug/kg	31.9	--	A
PCBs, Total	ND		ug/kg	31.9	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 01-03,05 Batch: WG927841-2 WG927841-3									
Aroclor 1016	102		98		40-140	4		50	A
Aroclor 1260	88		87		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		89		30-150	A
Decachlorobiphenyl	86		88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		95		30-150	B
Decachlorobiphenyl	93		99		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 04,06 Batch: WG928866-2 WG928866-3									
Aroclor 1016	72		75		40-140	4		50	A
Aroclor 1260	70		62		40-140	12		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		76		30-150	A
Decachlorobiphenyl	71		73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		71		30-150	B
Decachlorobiphenyl	69		69		30-150	B

METALS

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Percent Solids: 93%

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	9.0		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Barium, Total	30		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Chromium, Total	30		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Lead, Total	7.2		mg/kg	2.1	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.07	--	1	08/30/16 09:00	08/30/16 15:06	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.85	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 13:28	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02

Date Collected: 08/26/16 09:55

Client ID: 1607530-B103(S3-S4)

Date Received: 08/29/16

Sample Location: NEWINGTON, NH

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.1		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Barium, Total	18		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Chromium, Total	26		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Lead, Total	8.6		mg/kg	2.1	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.07	--	1	08/30/16 09:00	08/30/16 15:08	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.84	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.42	--	1	08/31/16 06:40	08/31/16 14:39	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil
Percent Solids: 84%

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Barium, Total	44		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Chromium, Total	19		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Lead, Total	6.8		mg/kg	2.3	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	--	1	08/30/16 09:00	08/30/16 15:10	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.94	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 14:43	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Percent Solids: 79%

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12		mg/kg	0.49	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Barium, Total	31		mg/kg	0.49	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.49	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Chromium, Total	18		mg/kg	0.49	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Lead, Total	8.9		mg/kg	2.4	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	--	1	08/30/16 09:00	08/30/16 15:12	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.98	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.49	--	1	08/31/16 06:40	08/31/16 14:47	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP**Lab Number:** L1627010**Project Number:** 1607530**Report Date:** 09/15/16**SAMPLE RESULTS****Lab ID:** L1627010-05**Date Collected:** 08/26/16 11:45**Client ID:** 1607530-B101(S1-S2)**Date Received:** 08/29/16**Sample Location:** NEWINGTON, NH**Field Prep:** Not Specified**Matrix:** Soil**Percent Solids:** 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.4		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Barium, Total	28		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Chromium, Total	14		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Lead, Total	5.7		mg/kg	2.4	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	--	1	08/30/16 09:00	08/30/16 15:19	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.94	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.47	--	1	08/31/16 06:40	08/31/16 15:48	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil
Percent Solids: 81%

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.6		mg/kg	0.48	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Barium, Total	33		mg/kg	0.48	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.48	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Chromium, Total	16		mg/kg	0.48	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Lead, Total	4.6		mg/kg	2.4	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.08	--	1	08/30/16 09:00	08/30/16 15:21	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.96	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.48	--	1	08/31/16 06:40	08/31/16 15:51	EPA 3050B	1,6010C	PS



Project Name: EVERSOURCE NH SRP

Lab Number: L1627010

Project Number: 1607530

Report Date: 09/15/16

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG927131-1										
Mercury, Total	ND		mg/kg	0.08	--	1	08/30/16 09:00	08/30/16 14:37	1,7471B	BV

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG927532-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	--	1	08/31/16 06:40	08/31/16 14:15	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG927131-2 SRM Lot Number: D089-540								
Mercury, Total	101		-		57-143	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG927532-2 SRM Lot Number: D089-540								
Arsenic, Total	100		-		80-120	-		
Barium, Total	93		-		83-117	-		
Cadmium, Total	95		-		82-117	-		
Chromium, Total	96		-		79-121	-		
Lead, Total	95		-		81-119	-		
Selenium, Total	90		-		78-121	-		
Silver, Total	97		-		75-125	-		

Matrix Spike Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06			QC Batch ID: WG927131-4			QC Sample: L1626498-01			Client ID: MS Sample			
Mercury, Total	ND	0.144	0.18	125	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06			QC Batch ID: WG927532-4			QC Sample: L1627089-01			Client ID: MS Sample			
Arsenic, Total	1.7	9.93	10	84		-	-		75-125	-		20
Barium, Total	25	165	150	76		-	-		75-125	-		20
Cadmium, Total	ND	4.22	2.8	66	Q	-	-		75-125	-		20
Chromium, Total	3.5	16.5	14	63	Q	-	-		75-125	-		20
Lead, Total	3.3	42.2	30	63	Q	-	-		75-125	-		20
Selenium, Total	ND	9.93	7.8	78		-	-		75-125	-		20
Silver, Total	ND	24.8	21	85		-	-		75-125	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG927131-3 QC Sample: L1626498-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG927532-3 QC Sample: L1627089-01 Client ID: DUP Sample						
Arsenic, Total	1.7	2.0	mg/kg	16		20
Barium, Total	25	29	mg/kg	15		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	3.5	4.4	mg/kg	23	Q	20
Lead, Total	3.3	3.6	mg/kg	9		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Dry Soil
Particle Size: Fine
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 15:55	1,1030	AB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 15:55	1,1030	AB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Dry Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 15:55	1,1030	AB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Wet Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 15:55	1,1030	AB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 23:45	1,1030	SB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Soil
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	08/30/16 23:45	1,1030	SB



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-01
Client ID: 1607530-B103(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 09:25
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	ND		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	93.3		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	5.7		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:01	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:53	1,7.3	TL
Oxidation/Reduction Potential	170		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-02
Client ID: 1607530-B103(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 09:55
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	44		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	92.4		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	7.0		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:01	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:53	1,7.3	TL
Oxidation/Reduction Potential	150		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-03
Client ID: 1607530-B102(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 10:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	ND		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	83.6		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	6.3		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:01	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:53	1,7.3	TL
Oxidation/Reduction Potential	170		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-04
Client ID: 1607530-B102(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 11:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	28		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	79.2		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	7.4		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:01	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:53	1,7.3	TL
Oxidation/Reduction Potential	190		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-05
Client ID: 1607530-B101(S1-S2)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 11:45
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	ND		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	84.2		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	6.2		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:02	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:54	1,7.3	TL
Oxidation/Reduction Potential	180		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

SAMPLE RESULTS

Lab ID: L1627010-06
Client ID: 1607530-B101(S3-S4)
Sample Location: NEWINGTON, NH
Matrix: Soil

Date Collected: 08/26/16 12:00
Date Received: 08/29/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	ND		umhos/cm	10	--	1	-	08/30/16 19:35	1,9050A	AS
Solids, Total	80.9		%	0.100	NA	1	-	08/30/16 16:09	121,2540G	RI
pH (H)	6.4		SU	-	NA	1	-	08/30/16 01:30	1,9045D	MC
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:02	1,7.3	TL
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:54	1,7.3	TL
Oxidation/Reduction Potential	170		mv	-	NA	1	-	08/30/16 02:19	68,1498	MC



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

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): 01-06 Batch: WG927398-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 23:00	1,7.3	TL
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG927400-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	08/30/16 22:05	08/30/16 22:52	1,7.3	TL

Lab Control Sample Analysis

Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG927110-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG927111-1								
Oxidation/Reduction Potential	98		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG927398-2								
Cyanide, Reactive	48		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG927400-2								
Sulfide, Reactive	98		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG927422-1								
Specific Conductance	100		-		99-101	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927110-2 QC Sample: L1627010-01 Client ID: 1607530-B103(S1-S2)						
pH (H)	5.7	5.7	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927111-2 QC Sample: L1627010-01 Client ID: 1607530-B103(S1-S2)						
Oxidation/Reduction Potential	170	170	mv	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927364-1 QC Sample: L1627010-01 Client ID: 1607530-B103(S1-S2)						
Solids, Total	93.3	92.4	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927398-3 QC Sample: L1627028-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927400-3 QC Sample: L1627028-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG927422-2 QC Sample: L1627026-01 Client ID: DUP Sample						
Specific Conductance	74	97	umhos/cm	27	Q	20

Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 08/29/2016 22:27

Cooler Information Custody Seal

Cooler

A Absent

B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627010-01A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-01B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-01C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-01D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1627010-01E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-01F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-01G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-01H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-01X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()
L1627010-02A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-02B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-02C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-02D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)

*Values in parentheses indicate holding time in days



Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627010-02E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-02F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-02G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-02H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-02X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()
L1627010-03A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-03B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-03C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-03D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1627010-03E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-03F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-03G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-03H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-03X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()
L1627010-04A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-04B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-04C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)

*Values in parentheses indicate holding time in days



Project Name: EVERSOURCE NH SRP

Project Number: 1607530

Lab Number: L1627010

Report Date: 09/15/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627010-04D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-Tl(180),BA-Tl(180),AG-Tl(180),CR-Tl(180),PB-Tl(180),SE-Tl(180),HG-T(28),CD-Tl(180)
L1627010-04E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-04F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-04G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-04H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-04X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()
L1627010-05A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-05B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-05C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-05D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-Tl(180),BA-Tl(180),AG-Tl(180),CR-Tl(180),PB-Tl(180),SE-Tl(180),HG-T(28),CD-Tl(180)
L1627010-05E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-05F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-05G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-05H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-05X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()
L1627010-06A	Vial MeOH preserved	A	N/A	2.4	Y	Absent	8260H(14)

*Values in parentheses indicate holding time in days



Project Name: EVERSOURCE NH SRP**Project Number:** 1607530**Lab Number:** L1627010**Report Date:** 09/15/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627010-06B	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-06C	Vial water preserved	A	N/A	2.4	Y	Absent	8260H(14)
L1627010-06D	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	Y	Absent	AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1627010-06E	Glass 60mL/2oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-06F	Glass 120ml/4oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-06G	Glass 500ml/16oz unpreserved	A	N/A	2.4	Y	Absent	8270TCL(14),IGNIT-1030(14),ORP-9045(1),REACTS(14),PCB-8082(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1627010-06H	Plastic 250ml unpreserved	B	N/A	3.1	Y	Absent	SUB-537()
L1627010-06X	Glass 120ml/4oz unpreserved/No H	A	N/A	2.4	Y	Absent	HEXCR-RELOG()

*Values in parentheses indicate holding time in days



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

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.
LCSD	- 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
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

Report Format: Data Usability Report



Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: EVERSOURCE NH SRP
Project Number: 1607530

Lab Number: L1627010
Report Date: 09/15/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 68 Annual Book of ASTM (American Society for Testing and Materials) Standards following extraction by SW-846 EPA Method 9045C under the requirements of MADEP BWSC, WSC-CAM-VIB. August 2004.
- 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.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 7

Department: **Quality Assurance**

Published Date: 8/5/2016 11:25:56 AM

Title: **Certificate/Approval Program Summary**

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Certification Information

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

Westborough Facility**EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** NPW and SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**EPA 9012B:** NPW: Total Cyanide**EPA 9050A:** NPW: Specific Conductance**SM3500:** NPW: Ferrous Iron**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.**SM5310C:** DW: Dissolved Organic Carbon**Mansfield Facility****SM 2540D:** TSS**EPA 3005A** NPW**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**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.

Biological Tissue Matrix: **EPA 3050B**

The following analytes are included in our Massachusetts DEP Scope of Accreditation


Westborough Facility:**Drinking Water****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; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, 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.****Mansfield Facility:****Drinking Water****EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

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08/29/16

L1627010

Chain-of-Custody Record				Laboratory: Alpha		Laboratory Job #	
				Project Information			
 <p>GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 PH: 781.721.4000 FX: 781.721.4073</p>				Project Name: Eversource NH SRP		Project Location: Newington, NH	
				Project Number: 1607530		Project Manager: Mike Sabulis (office: 781-721-4114) (cell: 508-633-9544)	
				Send Report to: Jess Englehart		Preservative	
				Send EDD to: labdata@geiconsultants.com		Analysis	
MCP PRESUMPTIVE CERTAINTY REQUIRED -- YES NO If Yes, Are MCP Analytical Methods Required? YES NO NA If Yes, Are Drinking Water Samples Submitted? YES NO NA If Yes, Have You Met Minimum Field QC Requirements? YES NO NA						Page 1 of 1 Sample Handling Samples Field Filtered YES NO NA Sampled Shipped With Ice YES NO Sample Specific Remarks	
Lab Sample Number	GEI Sample ID	Collection Date Time	Matrix	No. of Bottles	Sampler(s) Initials	PFOS	PFOA
	1607530-B103(S1-S2)	8/26/16 09:25	SO	1	MEG	X	X
	B103(S3-S4)	↓ 09:55	↓	↓	↓	↓	↓
	B102(S1-S2)	↓ 10:45	↓	↓	↓	↓	↓
	B102(S3-S4)	↓ 11:00	↓	↓	↓	↓	↓
	B101(S1-S2)	↓ 11:45	↓	↓	↓	↓	↓
	B101(S3-S4)	↓ 12:00	↓	↓	↓	↓	↓
MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.						Turnaround Time (Business days):	
Relinquished by sampler: (signature)		Date:	Time:	Received by: (signature)		Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.	
1. Molly Green		8/27/16	14:50	1. GEI Fridge		Normal <u>X</u> Other <u> </u> 10-Day <u> </u> 7-Day <u> </u> 5-Day <u> </u> 3-Day <u> </u>	
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		Additional Requirements/Comments/Remarks:	
2. GEI Fridge		8/29/16	11:20	2. J. Englehart			
Relinquished by: (signature)		Date:	Time:	Received by: (signature)			
3. J. Englehart		8/29/16	11:20	3. [Signature]			
Relinquished by: (signature)		Date:	Time:	Received by: (signature)			
4. [Signature]		8/29/16	17:20	4. [Signature]			



September 15, 2016

Vista Work Order No. 1601099

Ms. Karyn Raymond
Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581

Dear Ms. Raymond,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on August 31, 2016. This sample set was analyzed on a rush turn-around time. The SDG Number is L1627010.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Karen Lopez" followed by the word "for" in a smaller, cursive script.

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

SDG Number L1627010

Vista Work Order No. 1601099

Case Narrative

Sample Condition on Receipt:

Six soil samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. This report was amended to reflect Alpha job number L1627010 rather than L1626010.

Analytical Notes:

Modified EPA Method 537

The samples were extracted and analyzed for PFOA and PFOS using Modified EPA Method 537. The results include both linear and branched isomers.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The recoveries of all internal standards in the QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1601099-01	1607530-B103(S1-S2)	26-Aug-16 09:25	31-Aug-16 09:33	HDPE Jar, 4 oz
1601099-02	1607530-B103(S3-S4)	26-Aug-16 09:55	31-Aug-16 09:33	HDPE Jar, 4 oz
1601099-03	1607530-B102(S1-S2)	26-Aug-16 10:45	31-Aug-16 09:33	HDPE Jar, 4 oz
1601099-04	1607530-B102(S3-S4)	26-Aug-16 11:00	31-Aug-16 09:33	HDPE Jar, 4 oz
1601099-05	1607530-B101(S1-S2)	26-Aug-16 11:45	31-Aug-16 09:33	HDPE Jar, 4 oz
1601099-06	1607530-B101(S3-S4)	26-Aug-16 12:00	31-Aug-16 09:33	HDPE Jar, 4 oz

ANALYTICAL RESULTS

Sample ID: Method Blank				VAL - PFAS			
Matrix: Solid Sample Size: 1.00 g		QC Batch: B6I0041 Date Extracted: 08-Sep-2016 14:54		Lab Sample: B6I0041-BLK1 Date Analyzed: 12-Sep-16 19:47 Column: BEH C18 Analyst: AC			
Analyte	Conc. (ng/g)	RL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOA	ND	2.00		IS 13C2-PFOA	124	60 - 150	
PFOS	ND	2.00		IS 13C8-PFOS	109	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.
When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR					VAL - PFAS			
Matrix: Solid		QC Batch: B6I0041			Lab Sample: B6I0041-BS1			
Sample Size: 1.00 g		Date Extracted: 08-Sep-2016 14:54			Date Analyzed: 12-Sep-16 18:56 Column: BEH C18 Analyst: AC			
Analyte	Amt Found (ng/g)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
PFOA	9.89	10.0	98.9	70 - 130	IS	13C2-PFOA	123	60 - 150
PFOS	10.7	10.0	107	70 - 130	IS	13C8-PFOS	105	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: 1607530-B103(S1-S2)										VAL - PFAS									
Client Data Name: Alpha Analytical Laboratory Project: Date Collected: 26-Aug-2016 9:25						Sample Data Matrix: Soil Sample Size: 1.46 g % Solids: 71.0				Laboratory Data Lab Sample: 1601099-01 Date Received: 31-Aug-2016 9:33 QC Batch: B6I0041 Date Extracted: 08-Sep-2016 14:54 Date Analyzed: 13-Sep-16 02:56 Column: BEH C18 Analyst: AC									
Analyte		Conc. (ng/g)		RL		Qualifiers				Labeled Standard		%R		LCL-UCL		Qualifiers			
PFOA		ND		1.93						IS 13C2-PFOA		137		60 - 150					
PFOS		ND		1.93						IS 13C8-PFOS		76.3		60 - 150					

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

The sample size is reported in wet weight.

Results reported to RL.

When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B103(S3-S4)					VAL - PFAS				
Client Data Name: Alpha Analytical Laboratory Project: Date Collected: 26-Aug-2016 9:55			Sample Data Matrix: Soil Sample Size: 1.23 g % Solids: 80.4		Laboratory Data Lab Sample: 1601099-02 Date Received: 31-Aug-2016 9:33 QC Batch: B6I0041 Date Extracted: 08-Sep-2016 14:54 Date Analyzed: 13-Sep-16 03:09 Column: BEH C18 Analyst: AC				
Analyte	Conc. (ng/g)	RL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers
PFOA	ND	2.02			IS	13C2-PFOA	130	60 - 150	
PFOS	ND	2.02			IS	13C8-PFOS	81.7	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.
When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B102(S1-S2)				VAL - PFAS			
Client Data		Sample Data		Laboratory Data			
Name:	Alpha Analytical Laboratory	Matrix:	Soil	Lab Sample:	1601099-03	Date Received:	31-Aug-2016 9:33
Project:		Sample Size:	1.37 g	QC Batch:	B6I0041	Date Extracted:	08-Sep-2016 14:54
Date Collected:	26-Aug-2016 10:45	% Solids:	75.0	Date Analyzed:	13-Sep-16 03:21	Column:	BEH C18 Analyst: AC
Analyte	Conc. (ng/g)	RL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOA	ND	1.95		IS 13C2-PFOA	150	60 - 150	
PFOS	ND	1.95		IS 13C8-PFOS	99.6	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

The sample size is reported in wet weight.

Results reported to RL.

When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B102(S3-S4)					VAL - PFAS				
Client Data Name: Alpha Analytical Laboratory Project: Date Collected: 26-Aug-2016 11:00			Sample Data Matrix: Soil Sample Size: 1.36 g % Solids: 75.3		Laboratory Data Lab Sample: 1601099-04 Date Received: 31-Aug-2016 9:33 QC Batch: B6I0041 Date Extracted: 08-Sep-2016 14:54 Date Analyzed: 13-Sep-16 03:34 Column: BEH C18 Analyst: AC				
Analyte	Conc. (ng/g)	RL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers
PFOA	ND	1.95			IS	13C2-PFOA	141	60 - 150	
PFOS	ND	1.95			IS	13C8-PFOS	108	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.
When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B101(S1-S2)						VAL - PFAS				
Client Data Name: Alpha Analytical Laboratory Project: Date Collected: 26-Aug-2016 11:45			Sample Data Matrix: Soil Sample Size: 1.38 g % Solids: 74.1		Laboratory Data Lab Sample: 1601099-05 Date Received: 31-Aug-2016 9:33 QC Batch: B6I0041 Date Extracted: 08-Sep-2016 14:54 Date Analyzed: 13-Sep-16 03:47 Column: BEH C18 Analyst: AC					
Analyte	Conc. (ng/g)	RL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers	
PFOA	ND	1.96			IS	13C2-PFOA	135	60 - 150		
PFOS	ND	1.96			IS	13C8-PFOS	103	60 - 150		

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.
When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B101(S3-S4)						VAL - PFAS									
Client Data			Sample Data			Laboratory Data									
Name:		Alpha Analytical Laboratory		Matrix:		Soil		Lab Sample:		1601099-06		Date Received:		31-Aug-2016 9:33	
Project:				Sample Size:		1.30 g		QC Batch:		B6I0041		Date Extracted:		08-Sep-2016 14:54	
Date Collected:		26-Aug-2016 12:00		% Solids:		78.5		Date Analyzed:		13-Sep-16 03:59		Column: BEH C18		Analyst: AC	
Analyte	Conc. (ng/g)	RL	Qualifiers			Labeled Standard		%R	LCL-UCL		Qualifiers				
PFOA	ND	1.96				IS	13C2-PFOA	148	60 - 150						
PFOS	ND	1.96				IS	13C8-PFOS	98.0	60 - 150						

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit
The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to RL.
When reported, PFBS, PFHxS and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

SAMPLE LOG-IN CHECKLIST



Vista Project #:

1601099

TAT

Samples Arrival:	Date/Time	Initials:	Location:
	08/31/16 0933	BSB	WR-2
Logged In:	Date/Time	Initials:	Location:
	09/01/16 1235	BSB	WR-2
Delivered By:	FedEx	UPS	On Trac
			DHL
Preservation:	Ice	Blue Ice	Dry Ice
			None
Temp °C:	1.9 (uncorrected)	Time:	Thermometer ID: IR-1
Temp °C:	1.6 (corrected)	Probe used: Yes <input type="checkbox"/> No <input type="checkbox"/>	

		YES	NO	NA
Adequate Sample Volume Received?				
Holding Time Acceptable?				
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?				✓
Shipping Documentation Present?		✓		
Airbill	Trk # 1Z E30654019384 2982	✓		
Sample Container Intact?				
Sample Custody Seals Intact?		✓		
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?				
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				
Na ₂ S ₂ O ₃ Preservation Documented?	COC	Sample Container	None	
Shipping Container	Vista	Client	Retain	Return
				Dispose

Comments:



September 15, 2016

Vista Work Order No. 1601114

Ms. Karyn Raymond
Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581

Dear Ms. Raymond,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on September 03, 2016. This sample set was analyzed on a rush turn-around time. The SDG Number is L1627653.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Martha Maier".

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Analytical Laboratory 1104 Windfeld Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

SDG Number L1627653

Vista Work Order No. 1601114

Case Narrative

Sample Condition on Receipt:

Three water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

Modified EPA Method 537

The samples were extracted and analyzed for PFOA and PFOS using Modified EPA Method 537. The results include both linear and branched isomers.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The recoveries of all internal standards in the QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1601114-01	1607530-B101 (MW)	01-Sep-16 10:00	03-Sep-16 09:45	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1601114-02	1607530-B102 (MW)	01-Sep-16 10:10	03-Sep-16 09:45	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1601114-03	1607530-SW1	01-Sep-16 10:35	03-Sep-16 09:45	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank				Modified EPA Method 537			
Matrix: Aqueous Sample Size: 0.125 L		QC Batch: B6I0058 Date Extracted: 13-Sep-2016 7:28		Lab Sample: B6I0058-BLK1 Date Analyzed: 13-Sep-16 17:52 Column: BEH C18 Analyst: AC			
Analyte	Conc. (ng/L)	RL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOA	ND	8.00		IS 13C2-PFOA	92.7	60 - 150	
PFOS	ND	8.00		IS 13C8-PFOS	88.3	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to RL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR					Modified EPA Method 537			
Matrix: Aqueous		QC Batch: B6I0058			Lab Sample: B6I0058-BS1			
Sample Size: 0.125 L		Date Extracted: 13-Sep-2016 7:28			Date Analyzed: 13-Sep-16 17:14 Column: BEH C18 Analyst: AC			
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard		%R	LCL-UCL
PFOA	73.9	80.0	92.4	70 - 130	IS	13C2-PFOA	104	60 - 150
PFOS	79.1	80.0	98.9	70 - 130	IS	13C8-PFOS	90.7	60 - 150

LCL-UCL - Lower control limit - upper control limit

Sample ID: 1607530-B101 (MW)					Modified EPA Method 537			
Client Data			Sample Data		Laboratory Data			
Name:	Alpha Analytical Laboratory		Matrix:	Water	Lab Sample:	1601114-01	Date Received:	03-Sep-2016 9:45
Project:			Sample Size:	0.127 L	QC Batch:	B6I0058	Date Extracted:	13-Sep-2016 7:28
Date Collected:	01-Sep-2016 10:00				Date Analyzed:	13-Sep-16 18:18	Column:	BEH C18 Analyst: AC
Analyte	Conc. (ng/L)	RL	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
PFOA	ND	7.86			IS 13C2-PFOA	117	60 - 150	
PFOS	ND	7.86			IS 13C8-PFOS	68.2	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to RL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-B102 (MW)				Modified EPA Method 537			
Client Data		Sample Data		Laboratory Data			
Name:	Alpha Analytical Laboratory	Matrix:	Water	Lab Sample:	1601114-02	Date Received:	03-Sep-2016 9:45
Project:		Sample Size:	0.125 L	QC Batch:	B6I0058	Date Extracted:	13-Sep-2016 7:28
Date Collected:	01-Sep-2016 10:10			Date Analyzed:	13-Sep-16 18:30	Column:	BEH C18 Analyst: AC
Analyte	Conc. (ng/L)	RL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOA	11.2	8.01		IS 13C2-PFOA	101	60 - 150	
PFOS	16.1	8.01		IS 13C8-PFOS	88.9	60 - 150	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to RL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

Sample ID: 1607530-SW1					Modified EPA Method 537				
Client Data Name: Alpha Analytical Laboratory Project: Date Collected: 01-Sep-2016 10:35			Sample Data Matrix: Water Sample Size: 0.123 L		Laboratory Data Lab Sample: 1601114-03 Date Received: 03-Sep-2016 9:45 QC Batch: B6I0058 Date Extracted: 13-Sep-2016 7:28 Date Analyzed: 13-Sep-16 18:43 Column: BEH C18 Analyst: AC 14-Sep-16 10:33 Column: BEH C18 Analyst: AC				
Analyte	Conc. (ng/L)	RL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers
PFOA	842	8.12			IS	13C2-PFOA	101	60 - 150	
PFOS	2910	40.6	D		IS	13C8-PFOS	95.4	60 - 150 D	

RL - Reporting limit

LCL-UCL - Lower control limit - upper control limit

Results reported to RL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

SAMPLE LOG-IN CHECKLIST



Vista Project #: 1601114 TAT 14

Samples Arrival:	Date/Time	Initials:	Location:
	<u>9/3/16 09:45</u>	<u>WL</u>	<u>WR-2</u> Shelf/Rack: <u>NA</u>
Logged In:	Date/Time	Initials:	Location:
	<u>09/06/16 1325</u>	<u>RAK</u>	<u>WR-2</u> Shelf/Rack: <u>F6</u>
Delivered By:	FedEx	<u>UPS</u>	On Trac
Preservation:	Ice	Blue Ice	Dry Ice
			None
Temp °C:	<u>0.90</u> (uncorrected)	Time: <u>09:50</u>	Thermometer ID: IR-1
Temp °C:	<u>0.5</u> (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

		YES	NO	NA
Adequate Sample Volume Received?		<input checked="" type="checkbox"/>		
Holding Time Acceptable?		<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?		<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?				<input checked="" type="checkbox"/>
Shipping Documentation Present?		<input checked="" type="checkbox"/>		
Airbill	Trk # <u>1ZE30654449471588</u>	<input checked="" type="checkbox"/>		
Sample Container Intact?		<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?				<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?		<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?			<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				<input checked="" type="checkbox"/>
Na ₂ S ₂ O ₃ Preservation Documented?	COC	Sample Container	<u>None</u>	
Shipping Container	Vista	<u>Client</u>	<u>Retain</u>	<u>Return</u>
				Dispose

Comments:

[illegible]

Appendix C

Groundwater Model Description

NEWINGTON NH – SRP INSTALLATION

DEWATERING FLOW ESTIMATE FOR INSTALLATION TRENCH

GW MODFLOW MODEL DESCRIPTION

Objective:

A trench excavation for a 115 kV transmission main installation is proposed across a farm field. Objective is to estimate dewatering rates to maintain dry excavation for utility trench.

Method:

Three-dimensional MODFLOW groundwater model used that directly outputs flow rate. Visual MODFLOW ® is a graphical user interface that runs the industry standard USGS MODFLOW code solving the groundwater continuity equation.

Assumptions:

Groundwater flow into excavations was modeled as steady state flow, assuming excavation open to full depth. The model extent is shown on Figure 1 with computed contours showing westerly groundwater flow across the project area. The model extends downward to elevation +10 ft. NAVD, which corresponds to an approximate 35 – 40-ft. aquifer thickness with impermeable base.

The water table aquifer is of relatively large extent such that theoretical steady state drawdown will not be achieved within the relatively short duration of the project. The model represents partial drawdown of the aquifer. For the predictive model, boundaries were assigned relatively close to the trenches (40 ft.) which represents the extent of aquifer influence as affected by dewatering. Applying a close head boundary also provides a higher, more conservative flow rate estimate. In a sensitivity analysis, moving the head boundary closer to the excavation (20 feet) resulted in a 30% increase in estimated flow. As the sensitivity prediction is within an order of magnitude, the head boundary distance is not considered significant in this range.

Soil data: Soil borings indicate the water table aquifer is comprised of fine-grained alluvium, with occasional thin sand lenses. Hydraulic conductivity testing was performed at two locations, where values of 0.06 and 0.22 ft./day were estimated for monitoring wells in the western and eastern project areas, respectively. The hydraulic conductivities were assumed to represent portions of the project area where shown on Figure 1.

Water level measurements and observed soil mottling indicate that the water table surface may be several inches above the proposed trench bottom elevation. As a conservative measure, the trenches were modeled assuming a bottom depth two feet below the natural water table.

Method:

Dewatering rates were estimated assuming a 25-foot trench length open at a time, with 5-foot width. Two trench lengths were modeled separately, representing the two soil conductivity zones, where shown on Figure 2. The computational grid is also shown on Figure 1. The model contains approximately 25 vertical layers in the saturated zone (varies depending on water table elevation), for discretization of vertical flow.

NEWINGTON NH – SRP INSTALLATION

DEWATERING FLOW ESTIMATE FOR INSTALLATION TRENCH

GW MODFLOW MODEL DESCRIPTION

Method (continued):

The model was first run to estimate the approximate present-conditions water table elevation. Drain cells in the model were assigned elevations to represent a bottom of excavation two feet below the computed natural water table at the specific representative trench segments. The model was then subdivided to compute drawdown locally to the specified trench segments. Head boundaries surrounding both trench segments were assigned the approximate elevations of the computed natural water table. The head boundaries effectively isolate the areas within, from flow outside the head boundary.

Site-specific elevations and the head boundary enclosures were used for reference purposes. A 25-foot trench segment two feet below the water table in soil of similar hydraulic conductivity would yield similar results. Similarly, smaller models the size of the head boundary enclosures would yield similar results.

For both trench segments, dewatering estimates were computed with and without inclusion of an approximately 6-inch sand seam about a foot above the excavation base.

Results:

Results are shown and tabulated on Figure 3.

Limitations:

The model simulations represent seepage from soil strata represented as uniform, homogeneous, and isotropic. The soil properties modeled are represented by two borings and two hydraulic conductivity test results, which is a relatively low data density for the project area. Flow rate estimates may vary with additional information. Actual variability encountered may result in dewatering rates different than those predicted.

Potential water sources not modeled may also need to be considered for planning purposes, including but not limited to free drainage from soil while being excavated, storm runoff, channeling from high conductivity zones or other hydraulic connections to surface water, and subsurface features with contained or perched water.

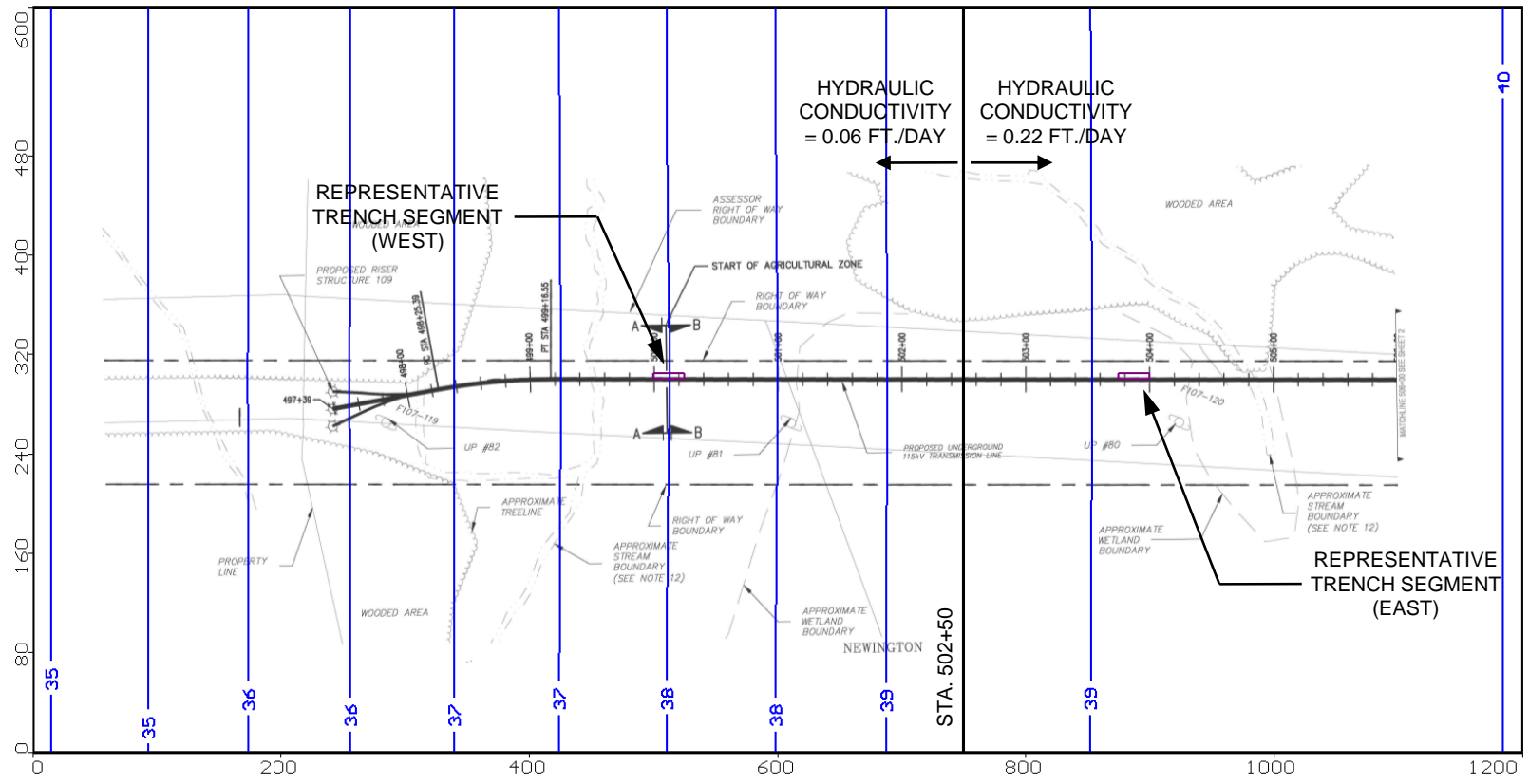


IMAGE SOURCE:
 "115kV F107 UNDERGROUND TRANSMISSION LINE",
 PLAN AND PROFILE VIEW, REVISION 7, 6/24/16

LEGEND

— 1.0 — MODEL-CALCULATED
 GROUNDWATER
 ELEVATION CONTOUR (FT.)

TRANSMISSION MAIN TRENCH DEWATERING
 SEACOAST RELIABILITY PROJECT
 NEWINGTON, NEW HAMPSHIRE

EVERSOURCE
 ENERGY



Project 1607530

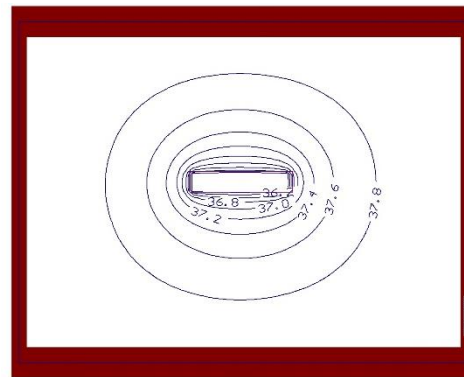
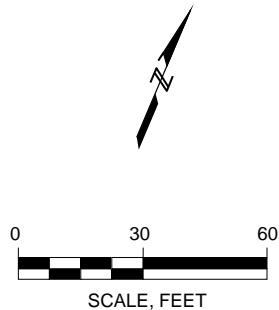
**PRESENT-CONDITIONS
 COMPUTED WATER
 TABLE**

December 2016

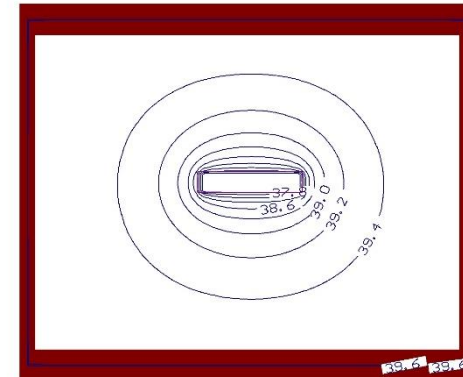
Figure 1

RESULTS SUMMARY TABLE

Trench Segment:		West	East
Trench Interval Represented	ft.	500+00 to 500+25	503+75 to 504+00
Hyd. Conductivity	ft./day	0.06	0.22
Static GW elev	ft. NAVD	38	39.6
Target GW elev	ft. NAVD	36	37.6
Dewatering Rate - no sand seam	gpd	29.0	106.7
Dewatering Rate - with sand seam	gpd	50.8	148.5



WEST SEGMENT



EAST SEGMENT

COMPUTED WATER TABLE ELEVATIONS
DEWATERING AT STEADY STATE
(CONDITIONS WITH NO SAND SEAM SHOWN)

LEGEND

- 1.0 — MODEL-CALCULATED GROUNDWATER ELEVATION CONTOUR (FT.)
- MODELED CONSTANT-HEAD BOUNDARY LOCATION

TRANSMISSION MAIN TRENCH DEWATERING
SEACOAST RELIABILITY PROJECT
NEWINGTON, NEW HAMPSHIRE

EVERSOURCE
ENERGY



Project 1607530

**DEWATERING
ESTIMATE AND
DRAWDOWN PLOTS**

December 2016

Figure 3