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May 4, 2018

Mr. Dale Mitchell
HNTB Corporation
2 Thomas Drive
Westbrook, Maine 04092
Via email: damitchell@HNTB.com

Subject: **Limited Phase II Investigation**
Kennebunk Service Plazas
Maine Turnpike, Kennebunk, Maine

Dear Mr. Mitchell:

At the request of HNTB and the Maine Turnpike Authority (MTA), Credere Associates, LLC (Credere) completed a pre-construction Limited Phase II Investigation to assess the presence of petroleum impacted soil and groundwater in advance of the planned gasoline and diesel underground storage tank (UST) facility replacements at both the Northbound and Southbound Kennebunk Service Plazas located on the Maine Turnpike in Kennebunk, Maine (Site). The Site location is depicted on **Figure 1**.

Background & Objective

The planned UST facility replacement work at the Northbound and Southbound Service Plazas will require excavation and removal of all USTs, piping, dispenser islands, and canopies as well as excavations for the installation of new piping and electrical utilities. The Northbound Service Plaza contains previously documented petroleum contamination from pre-existing historical releases. Dewatering and/or additional excavation of soil surrounding these facility components will be necessary during this work, and identification of the presence of impacted media (soil and/or groundwater) is important for the execution of the project. In consideration of this understanding, Credere prepared a scope of work to address the following primary objective:

- Assess the Site for the presence of contaminated media in the area of the known pre-existing release at the Northbound Service Plaza and evaluate unassessed areas around both the Northbound and Southbound Service Plazas for other evidence of petroleum releases to support the future management of soil and groundwater during facility replacement work.

To achieve this objective, Credere completed investigation work at the Site in accordance with Credere's Proposal to Conduct a Limited Phase II Investigation dated April 5, 2018, which is included as **Attachment A**.

Methodology and Field Activities

Prior to soil boring advancement, locations were appropriately pre-marked in the field by Credere. The DigSafe Network was then contacted, and member utilities were notified of the pending work. The work was completed under DigSafe ticket #20181500570. Additionally, MTA contracted with DigSmart of Maine to pre-clear boring locations using a mobile ground penetrating radar (GPR). Any conflicts between the pre-marked boring locations, the identified member utilities, and/or any identified subsurface anomalies identified by GPR were addressed by moving proposed boring(s) to a clear location.

Soil Borings

On April 12 and 13, 2018, Credere oversaw the advancement of soil borings SB-S1 through SB-S12 at the Southbound Service Plaza, and SB-N1 through SB-N13 at the Northbound Service Plaza by Environmental Projects, Inc. (EPI) of Auburn, Maine. All borings were advanced to approximately 5 feet below the groundwater table. Boring locations are shown on **Figure 2**. Borings were advanced using a direct-push GeoProbe® 6712DT track mounted rig equipped with a macrocore sampler. Macrocores were collected continuously using dedicated polyethylene liners. Soil cores were individually logged, and evidence of contamination was noted. Soil boring logs are included in **Attachment B**.

Soil was screened in accordance with the Maine Department of Environmental Protection (DEP) Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil, dated October 15, 2012. Cores were field screened for total volatile organic compounds (VOCs) using a Rae Systems ppbRAE 3000 photoionization detector (PID) calibrated with 10 parts per million by volume (ppm_v) isobutylene gas with a response factor of 1.0. Specifically, the PID soil screening was performed continuously through each core via open core method, with the highest reading from each foot or evenly spaced increment of the core recorded in field logs. Additionally, soil was screened by PID via foil bag headspace readings in approximately 2-foot intervals, or greater where soil recovery was poor. For depth intervals with evidence of contamination as indicated by PID reading or visual staining, an oleophilic dye test was also performed.

Credere collected one soil sample per boring from SB-S1 through SB-S12, SB-N1 through SB-N4, and SB-N8 through SB-N12 from the 2-foot interval with the greatest observed contamination (i.e., PID response, visual or olfactory evidence) or at the groundwater interface in the absence of evidence of contamination. No samples were collected from SB-N5 through SB-N7, and SB-N13 due to insufficient macrocore soil recovery.

Representative soil was collected while wearing clean nitrile gloves and using decontaminated hand tools (e.g., stainless steel spoon or spade). Volatile petroleum hydrocarbons (VPH) samples were collected directly from the macrocores using a dedicated soil syringe immediately after opening to prevent loss of volatiles and degradation. Soil for extractable petroleum hydrocarbons (EPH) analyses was homogenized in a decontaminated stainless steel bowl and placed in laboratory provided glassware. Soil samples were stored on ice and submitted to Absolute Resource Associates (ARA) of Portsmouth, New Hampshire, for VPH by MassDEP Method VPH-04-1.1 and EPH by MassDEP Method EPH-04-1.1 analyses.

Excess soil was returned to its place of origin in the borehole. Additional backfilling was completed with clean sand where necessary, the backfill was then compacted using a sledgehammer. Asphalt cold patch was used to seal the boreholes level with the asphalt surface.

Discrete Groundwater Sampling

Following soil boring advancement, Credere selected three borings at each Service Plaza with the highest levels of contamination as indicated by PID reading and oleophilic dye testing from which to collect discrete groundwater grab samples. Based on these criteria, groundwater samples were collected from borings SB-S1, SB-S5, SB-S9, SB-N4, SB-N9, and SB-N11. Discrete sampling was conducted using a temporary retractable screen placed in the borehole by EPI. Groundwater was then pumped from the temporary screen using a peristaltic pump until groundwater ran visually clear and free of turbidity. Samples were collected directly into laboratory provided glassware for VPH and EPH, placed on ice, and submitted to ARA for analysis using proper chain-of-custody protocols. A water quality parameter measurement was also collected at the time of sampling for turbidity using a Hach 2100Q turbidimeter, as well as for temperature, dissolved oxygen, conductivity, pH, and ORP using a Yellow Springs Instruments (YSI) multi-parameter meter. Groundwater parameters are summarized in **Table 1**.

Investigation Results

Soil Descriptions

Soil borings advanced at the Southbound Service Plaza generally consisted of brown sand and some intervals of gray sand with some brown silt and/or gray gravel to approximately 15 feet bgs. Groundwater was encountered at approximately 10 feet bgs at all Southbound Service Plaza borings. Boring advancement was stopped approximately 5 feet past the encountered groundwater interface, and refusal was not encountered at any boring location.

Soil borings advanced at the Northbound Service Plaza near the existing gas pumps (SB-N1 through SB-N4 and SB-N8) generally consist of brown sand and silt up to 15 feet bgs. Varying thicknesses of gray sand and silt was also encountered in many borings at approximately 4 to 5 feet bgs. Some fine gravel was also encountered in most borings. Soil borings advanced near the existing petroleum storage tanks (SB-N5 through SB-N7) generally consist of fine gravel to approximately 8 feet bgs. This material appeared to be non-native fill. Soil borings advanced near the existing diesel pumps (SB-N9 through SB-N11) and the existing diesel fuel storage tanks (SB-N12) generally consist of sand and silt to approximately 12 feet bgs. Soil boring SB-N13, near the diesel fuel tank consists of angular fine gravel from approximately 0 to 12 feet bgs. Varying thicknesses of peat was also observed in borings SB-N1, SB-N4, SB-N9, SB-N11, SB-N12. Groundwater was generally encountered at approximately 4 to 5 feet bgs at Northbound Service Plaza borings. Boring advancement was ended approximately 4 to 5 feet past the encountered groundwater interface, and refusal was not encountered at any boring location.

Groundwater Flow

Water levels could not be gauged during discrete sampling as the retractable screen sampling device was too narrow to insert a water level meter. However, a Site figure from a previous investigation work at the Site indicates that groundwater flow at the Site is to the northeast.

Additionally, the Site is abutted by a wetland area to the east, indicating the likely direction of groundwater flow.

Field Screening (Visual, Olfactory, PID, and Oleophilic Dye Tests)

A petroleum odor was observed in the soil sample collected from 10 to 11 feet bgs in SB-S5, and from 10-15 feet bgs in SB-S8. Petroleum odors were also noted from 2.3 to 5 feet bgs in SB-N2, from 5.8 to 6.4 feet bgs in SB-N3, from 6.4 to 10 feet bgs in SB-N4, from 6 to 8 feet bgs in SB-N9, and from 8 to 12 feet bgs in SB-N10. In the soil borings, evidence of petroleum was generally observed in a sandy interval. Evidence of petroleum was generally encountered at the groundwater interface. No visible petroleum staining was observed in any of the intervals indicated to be contaminated by other evidence.

Open core PID readings at the Southbound Service Plaza ranged from 0 to 412 ppm_v, with SB-S5 having the highest reading at approximately 12 feet bgs, and SB-S9 having the second highest reading of 306 ppm_v at approximately 11 feet bgs. In general, the majority of encountered evidence of petroleum contamination at the Southbound Service Plaza occurred at approximately 10 feet bgs and extended an additional 1 to 4 feet below the first encountered evidence of contamination. Open core PID readings at the Northbound Service Plaza ranged from 0 to 98.3 ppm_v with SB-N10 having the highest reading at approximately 7 feet bgs, and SB-N4 having the second highest reading of 97 ppm_v at approximately 7 feet bgs. PID response via direct measurement of open cores at the Northbound Service Plaza was highly varied with a maximum reading of 364 ppm_v in SB-N11. In general, the majority of encountered evidence of petroleum contamination at the Northbound Service Plaza occurred at approximately 4 to 6 feet bgs and extended an additional 1 to 8 feet below the first encountered evidence of contamination.

Foil bag headspace readings at the Southbound Service Plaza ranged from 0 to 1,181 ppm_v, with SB-S9 having the highest reading from approximately 10-15 feet bgs, and SB-S5 having the second highest reading of 834 ppm_v from approximately 10-12.5 feet bgs. Readings at the Northbound Service Plaza ranged from 0 to 1,179 ppm_v, SB-N9 having the highest reading from approximately 4-8 feet bgs, and SB-N11 having the second highest reading of 1,082 ppm_v 6-8 feet bgs.

Credere also conducted oleophilic dye tests for SB-S1, SB-S5, SB-S8, SB-S9, SB-N1, SB-N2, SB-N4, SB-N9, SB-N10, and SB-N11 at the sampled depths. Dye tests for sample collected at SB-S5, SB-S9, SB-N2, and SB-N11 were colored a light pink, indicating the soil is slightly positive for the presence of petroleum. SB-N4 was colored a dark pink/red, indicating the soil is positive for the presence of petroleum. SB-N10 was colored an obvious red with dye observed staining the sides of the jar, indicating the soil is saturated with petroleum. Results for SB-S1, SB-S8, SB-N1, and SB-N9 were undetected[1]. PID and oleophilic dye test field screening results are summarized in Soil Boring Logs included in **Attachment B**.

[1] Per the Maine DEP Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil, dated October 15, 2012, results for oleophilic dye tests are qualitative and ranked as: 1) saturated, 2) positive, 3) slightly positive, and 4) undetected based on color intensity of dye test.

Soil Analytical Results

Soil analytical results are summarized in **Table 2**, and the complete laboratory analytical reports are included as **Attachment C**. Soil sample results for EPH and VPH were compared to the Maine Department of Environmental Protection (DEP) Remediation Guidelines for Petroleum Contaminated Sites in Maine, May 23, 2014, and the Maine DEP Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances, February 5, 2016, for construction worker exposure scenario guidelines to assess the need for special worker protection measures to be taken during soil excavation.

EPH ranges and/or target compounds were detected in SB-S1, SB-S2, SB-S5, SB-S8, SB-S9, SB-N1, SB-N2, SB-N3, SB-NSB-N4, SB-N8, SB-N9, SB-N10, SB-N11. VPH ranges and/or target compounds were detected in SB-S1, SB-S4, SB-S5, SB-S8, SB-S9, SB-N1, SB-N2, SB-N3, SB-N4, SB-N8, SB-N9, SB-N10, and SB-N11. However, no EPH or VPH compounds were detected in soil in excess of the Remediation Guidelines for Petroleum Contaminated Site in Maine.

During VPH analysis, surrogates for samples SB-S2, SB-S5, SB-N2, SB-N4, SB-N9, SB-N10, and SB-N11 were diluted above allowable recovery ranges, which may have indicated a high bias in result concentrations.

Groundwater Analytical Results

Groundwater analytical results are summarized in **Table 3**, and the complete laboratory analytical reports are included as **Attachment C**. Groundwater sample results for EPH and VPH were compared to the Maine DEP Remediation Guidelines for Petroleum Contaminated Sites in Maine, May 23, 2014, and February 5, 2016 Maine DEP RAGs for the Groundwater Exposure Pathway by Exposure Scenario (Groundwater Construction Worker).

EPH analysis indicated naphthalene was detected in exceedance of applicable regulatory criteria in groundwater at SB-S1 and SB-S9; and 2-methylnaphthalene was detected in exceedance of applicable regulatory criteria at SB-S1, SB-S9, and SB-S11. Additional compounds were detected in SB-S9, SB-N9, and SB-N11; however, results were below the applicable regulatory criteria.

VPH were detected in exceedance of applicable regulatory criteria in the following locations:

- SB-S1: C5-C8 aliphatics, C9-C10 aromatics, toluene, ethylbenzene, xylenes, naphthalene
- SB-S5: C5-C8 aliphatics, C9-C10 aromatics
- SB-S9: C5-C8 aliphatics, C9-C10 aromatics
- SB-N9: C9-C10 aromatics, benzene
- SB-N11: C5-C8 aliphatics, C9-C10 aromatics

Additional compounds were detected in SB-N4, SB-N9, and SB-N11; however, results were below the petroleum guidelines and construction worker RAGs.

Distribution of Contaminants

Contaminants were detected in soil in the majority of borings, including SB-S1, SB-S2, SB-S4, SB-S5, SB-S8, SB-S9, SB-S10, SB-N1, SB-N2, SB-N3, SB-N4, SB-N8, SB-N9, SB-N10, and SB-N11; however, all detections of contaminants in soil were below applicable regulatory criteria. Contaminants were detected in groundwater in all borings/temporary wells where groundwater samples were collected. Contaminants were detected in excess of applicable regulatory criteria in all these locations except SB-N4, where the only detection was below applicable regulatory criteria. Additional compounds were detected in SB-S9, SB-N9, and SB-N11 below applicable regulatory criteria.

Conclusions

Based on the soil and groundwater investigation results obtained during this work, Credere offers the following conclusions regarding the presence of petroleum impacted media at the Site:

- PID headspace screening and oleophilic dye test results indicate the presence of petroleum in soil at both service plazas, but laboratory sample results did not reveal the presence of any petroleum related EPH or VPH ranges and target compounds above applicable regulatory guidelines. While these data are confirmation that releases have occurred, soil remediation work does not appear to be necessary. However, the current sample data set was collected at the periphery of UST facility components so it is our opinion that the potential exists to encounter contaminated soils above guidelines requiring remediation closer to the tank systems. Any excess soil generated during future UST replacement work will require further characterization and disposal of as a special waste.
- Groundwater results indicate that sampled groundwater at several locations at both plazas exceeds the Petroleum Remediation Guidelines and/or the Construction Worker RAGs. Based on this finding, groundwater will have to be properly managed during tank replacement work, and any construction workers that have the potential to encounter contaminated groundwater should be properly trained in accordance with pertinent provisions Occupational Safety & Health Administration (OSHA) 1910.120.

Limitations

This report has been prepared by Credere for HNTB and the MTA to provide information upon which it can rely concerning the existence or likely existence of contaminants herein evaluated.

This report does not reflect:

1. Conditions in untested areas and the characteristics of untested media.
2. Variations in chemical concentrations that can occur between sample locations.
3. The total understanding of historical Site activities, uses, equipment, or fixtures that may have contributed or are currently contributing to Site contamination.
4. Knowledge of the potential presence of compound sources other than what was surficially visible at the time of assessment.

5. The potential presence of analytes that were not analyzed or that may be present below minimum laboratory reporting limits for the methods tested.
6. Potential variation in the Site conditions that may have occurred at a time other than when the Site assessment was completed.

In the event that any conditions different from those described herein are encountered at a later time, Credere requests an opportunity to review such differences and modify the assessment and conclusions of this report. This report was prepared expressly for the purpose described. The information in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of this report, without adaptation, shall be at the sole risk and liability of the party undertaking the reuse.

Closing & Signatures

Based on the identification of petroleum contamination that may represent a threat to human health or the environmental under current or future uses of the Site, the results of this limited investigation should be provided to the MTA to allow their notification to the Maine DEP per Maine Statute Title 38, Chapter 2, Subchapter 1, §343-F.

Credere appreciates the opportunity to work with you on this project. Please do not hesitate to contact me at (207) 828-1272 ext. 16 if you have any questions.

Sincerely,
Credere Associates, LLC

Sean Gannon
Geologist I

Judd Newcomb, CG, PG
Senior Project Manager/Geologist

Rick Vandenberg, CG, PG
Technical Reviewer

Theresa Patten, PE
President

Attachments:
Figure 1 – Site Location Plan
Figure 2A – Detailed Site Plan – Southbound Service Plaza
Figure 2B – Detailed Site Plan – Northbound Service Plaza
Table 1 – Summary of Water Quality Parameters
Table 2 – Summary of Soil Analytical Results
Table 3 – Summary of Groundwater Analytical Results
Attachment A – Credere Proposal to Conduct a Limited Phase II Investigation
Attachment B – Boring Logs
Attachment C – Laboratory Analytical Reports

FIGURES

DRAWN BY: **SCG**	DATE: **04/26/2018**
CHECKED BY: **JRN**	PROJECT:**18001445**

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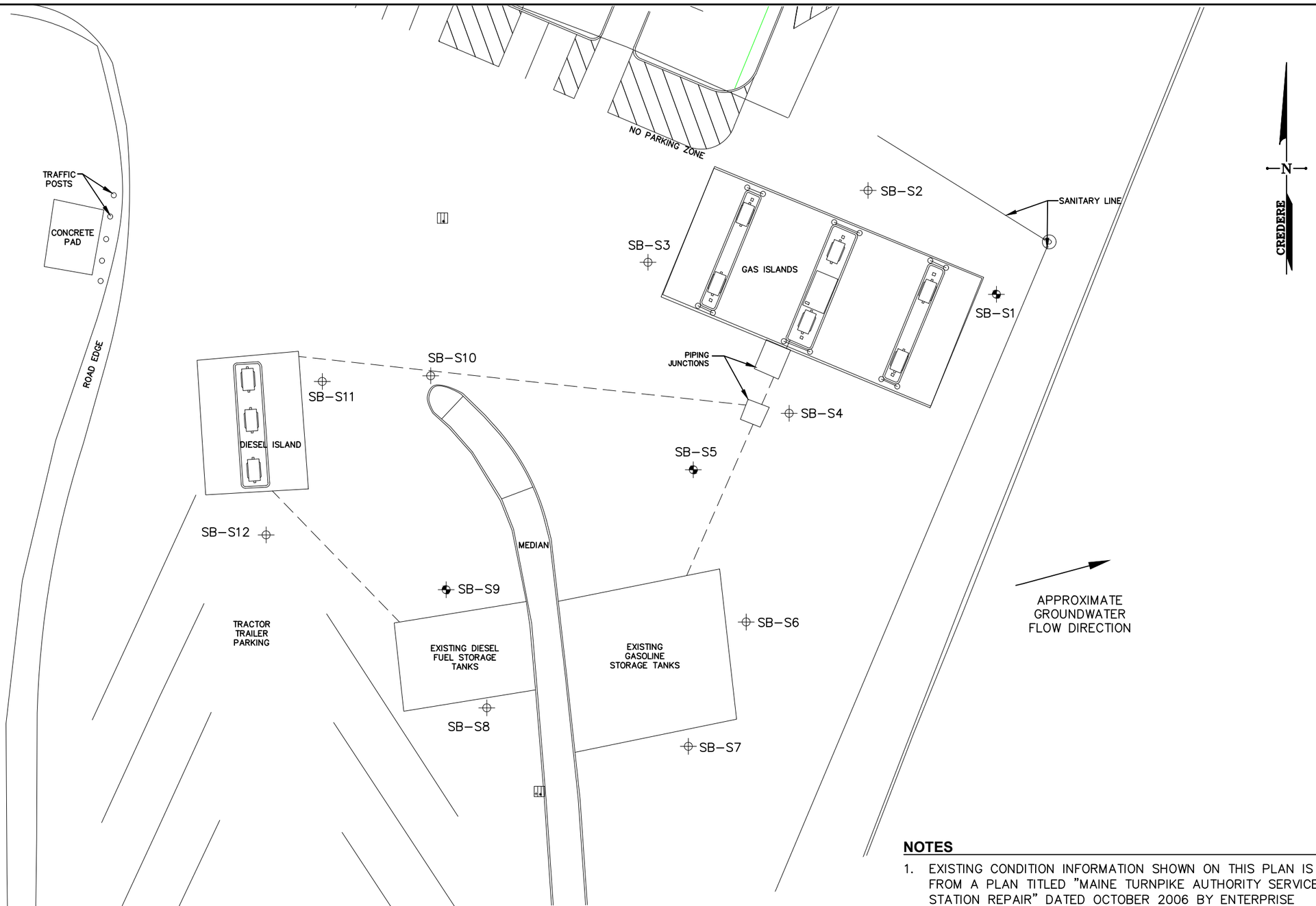
FIGURE 1
SITE LOCATION PLAN

KENNEBUNK SERVICE PLAZA
MAINE TURNPIKE
KENNEBUNK, MAINE

2,000 0 4,000 Feet
1 INCH = 2,000 FEET



SAMPLE LOCATION LEGEND

SYMBOL	DESCRIPTION
⊕	SOIL BORING LOCATION
⊕	SOIL BORING/GROUNDWATER SAMPLE LOCATION
– – – – –	APPROXIMATE UNDERGROUND FUEL PIPING LOCATION
▥	CATCH BASIN

NOTES

1. EXISTING CONDITION INFORMATION SHOWN ON THIS PLAN IS FROM A PLAN TITLED "MAINE TURNPIKE AUTHORITY SERVICE STATION REPAIR" DATED OCTOBER 2006 BY ENTERPRISE ENGINEERING, INC. OF FREEPORT, MAINE AND FROM OBSERVATIONS AND MEASUREMENTS BY CREDERE DURING THIS LIMITED PHASE II ESA.
2. SOIL BORING LOCATIONS WERE PRE–MARKED BY CREDERE ASSOCIATES FOR DIGSAFE AND CLEAREED BY DIGSMART OF MAINE.
3. FIELD WORK WAS COMPLETED AT THE SOUTHBOUND SERVICE STATION BY CREDERE ASSOCIATES ON APRIL 12, 2018.

FIGURE 2A
SOUTHBOUND SAMPLE LOCATION PLAN

GRAPHIC SCALE
30 15 0 30
1 inch = 30 ft.

KENNEBUNK SERVICE PLAZA
MAINE TURNPIKE
KENNEBUNK, ME

DRAWN BY: MAW | DATE: 4/20/2018
CHECKED BY: JRN | PROJECT: 18001445

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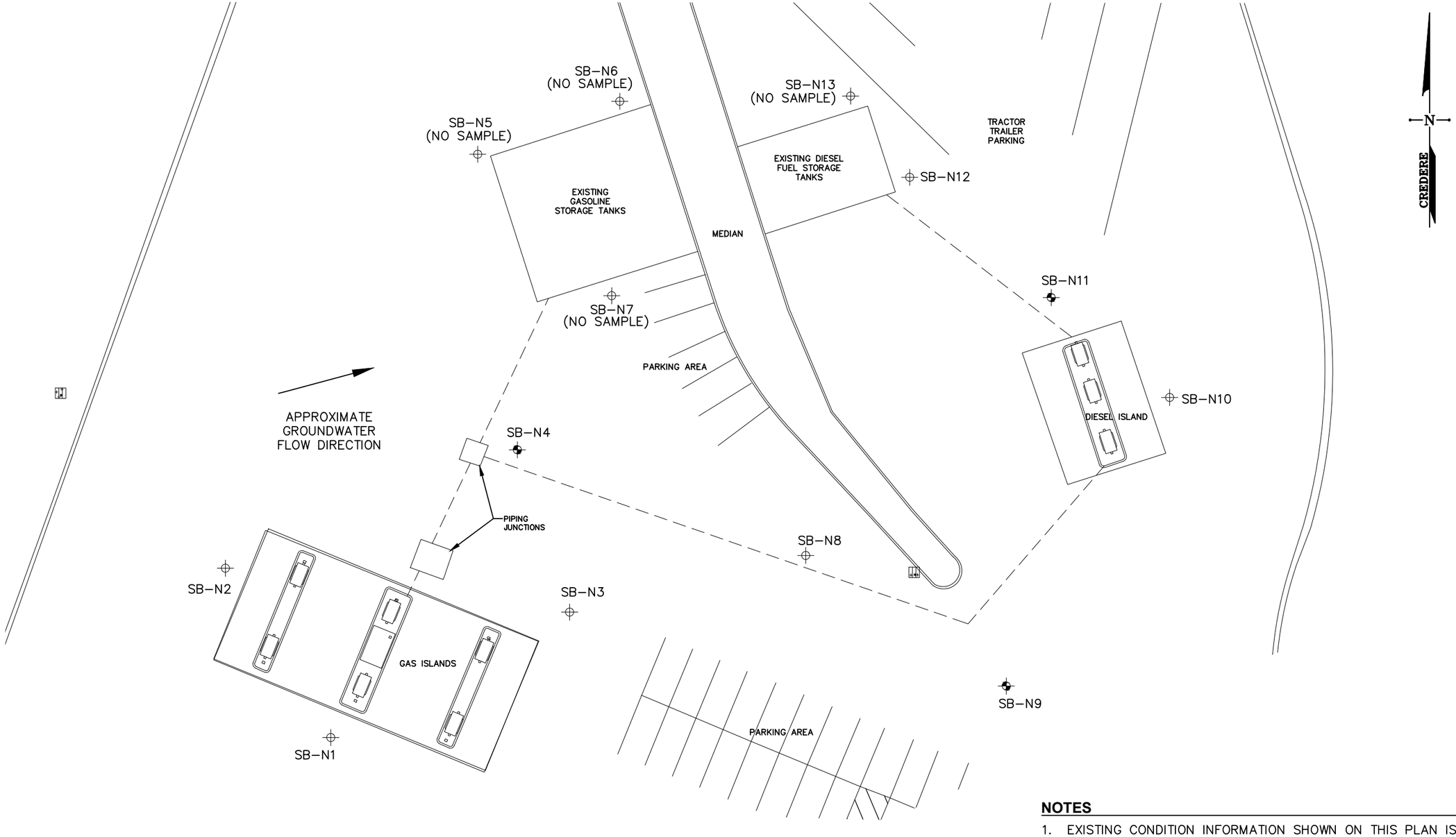
Economy Community Environment

J:\CREDERE\18001445 Kennebunk Service Plaza\FIGURE 2.dwg plot date: 5/18/2018 1:14 PM



SAMPLE LOCATION LEGEND

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2. SOIL BORING LOCATIONS WERE PRE–MARKED BY CREDERE ASSOCIATES FOR DIGSAFE AND CLEARED BY DIGSMART OF MAINE.
3. FIELD WORK WAS COMPLETED AT THE NORTHBOUND SERVICE STATION BY CREDERE ASSOCIATES ON APRIL 13, 2018.

FIGURE 2B
NORTHBOUND SAMPLE LOCATION PLAN

GRAPHIC SCALE
30 15 0 30
1 inch = 30 ft.

KENNEBUNK SERVICE PLAZA
MAINE TURNPIKE
KENNEBUNK, ME

DRAWN BY: MAW
CHECKED BY: JRN
DATE: 4/20/2018
PROJECT: 18001445

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Economy Community Environment

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TABLES

Table 1
Summary of Water Quality Parameters
Kennebunk Service Plaza
Maine Turnpike, Kennebunk, Maine

Boring ID	Sample Date	Temperature (°C)	Specific Conductance (mS/cm)	pH	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
SB-S1	4/12/2018	13.0	3.17	6.35	16.5	1.94	55.3
SB-S5	4/12/2018	11.1	2.54	6.13	NA	1.46	365
SB-S9	4/12/2018	11.1	1.21	5.69	-5.9	4.11	94.6
SB-N4	4/13/2018	11.6	5.35	6.19	8.3	1.43	370
SB-N9	4/13/2018	11.4	4.54	6.61	-39.8	4.23	441
SB-N11	4/13/2018	12.7	6.09	6.64	-41.6	9.90	503

Notes:
°C - degrees Celsius
mS/cm - millisiemens per centimeter
mg/L - milligrams per liter
mV - millivolt
ORP - oxidation-reduction potential
NTU - nephelometric turbidity units
Water quality readings were taken immediately prior to sample collection
NA - information not available/not recorded

Table 2
Summary of Soil Analytical Results
Kennebunk Service Plaza
Maine Turnpike, Kennebunk, Maine

Parameter*	Comparison Criteria (mg/kg)		Sample ID Depth Range (feet bgs) Sample Date																			
			SB-S1	SB-S2	SB-S3	SB-S4	SB-S5	SB-S6	SB-S7	SB-S8	SB-S9	SB-S10	SB-S11	SB-S12	SB-N1	SB-N2	SB-N3	SB-N4	SB-N8	SB-N9	SB-N10	SB-N11	SB-N12
	Petroleum Guidelines/ Excavation Construction Worker[1]	RAGs/ Construction Worker[2]	10-12	10-12	10-12	10-12	10-11	10-11	9-10	10-12	10-12	10-12	10-12	10-12	5-7	5-7	5-7	5-7	8-10	6-8	6-8	6-8	8-10
			4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/12/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018	4/13/2018
Extractable Petroleum Hydrocarbons (EPH) by MassDEP Method 04-1.1 (mg/kg)																							
C9-C18 aliphatics	10,000	10,000	ND<23	ND<22	ND<23	ND<23	**70**	ND<22	ND<20	ND<24	**51**	**36**	ND<24	ND<23	ND<26 J	ND<22 J	ND<22 J	**61 J**	ND<22 J	ND<23 J	**210 J**	ND<24 J	ND<23 J
C19-C36 aliphatics	10,000	10,000	ND<23	ND<22	ND<23	**26**	ND<23	ND<22	ND<20	ND<24	**38**	ND<23	ND<24	ND<23	ND<26	ND<22	ND<22	**37**	ND<22	ND<23	ND<24	ND<24	ND<23
C11-C22 aromatics	10,000	10,000	ND<23	ND<22	ND<23	ND<23	ND<23	ND<22	ND<20	ND<24	ND<22	ND<23	ND<24	ND<23	ND<26	ND<22	ND<22	ND<24	ND<22	ND<23	**140**	ND<24	ND<23
naphthalene	10,000	10,000	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	**0.6**	ND<0.2	ND<0.2	ND<0.2	ND<0.3	ND<0.2	ND<0.2	**1.0**	ND<0.2	**1.0**	ND<0.2	ND<0.2	ND<0.2
2-methylnaphthalene	120	600	**0.3**	ND<0.2	ND<0.2	ND<0.2	**0.3**	ND<0.2	ND<0.2	ND<0.2	**2.4**	ND<0.2	ND<0.2	ND<0.2	ND<0.3	ND<0.2	ND<0.2	**1.4**	ND<0.2	**0.8**	**10**	ND<0.2	ND<0.2
phenanthrene	1,800	8,900	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.3	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	**0.3**	ND<0.2	ND<0.2
Volatile Petroleum Hydrocarbons (VPH) by MassDEP Method 04-1.1 (mg/kg)																							
C5-C8 aliphatics	10,000	10,000	**13**	**550**	ND<5	ND<4	**1900**	ND<4	ND<4	**170**	**460**	ND<4	ND<5	ND<5	**7**	**130**	ND<4	**430**	**6**	**460**	**1600**	**290**	ND<5
C9-C12 alipahtics	10,000	10,000	ND<4	**99**	ND<5	ND<4	**340**	ND<4	ND<4	**58**	**270**	ND<4	ND<5	ND<5	ND<6	**23**	ND<4	**350**	**4**	**170**	**210**	**120**	ND<5
C9-C10 aromatics	10,000	10,000	**6**	**230**	ND<5	ND<4	**710**	ND<4	ND<4	**39**	**300**	ND<4	ND<5	ND<5	ND<6	**46**	**9**	**980**	**9**	**260**	**1300**	ND<90	ND<5
toluene	10,000	10,000	**0.8**	ND<0.9	ND<0.1	ND<0.1	ND<4.7	ND<0.1	ND<0.1	ND<0.2	ND<0.4	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	**0.1**	ND<1.9	ND<0.1	**0.6**	ND<1.7	ND<1.8	ND<0.1
benzene	30	150	ND<0.1	ND<0.9	ND<0.1	ND<0.1	ND<4.7	ND<0.1	ND<0.1	ND<0.2	ND<0.4	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<1.9	ND<0.1	ND<0.4	ND<1.7	ND<1.8	ND<0.1
ethylbenzene	3,900	10,000	**0.3**	ND<0.9	ND<0.1	ND<0.1	ND<4.7	ND<0.1	ND<0.1	ND<0.2	ND<0.4	ND<0.1	ND<0.1	ND<0.1	ND<0.1	**0.2**	**0.1**	**2.8**	ND<0.1	**1.0**	ND<1.7	ND<1.8	ND<0.1
total xylenes	10,000	10,000	**1.5**	ND<0.9	ND<0.1	ND<0.1	ND<4.7	ND<0.1	ND<0.1	ND<0.2	ND<0.4	ND<0.1	ND<0.1	ND<0.1	ND<0.1	**2.2**	**1.3**	**23**	**1.3**	**12**	ND<1.7	ND<1.8	ND<0.1
naphthalene	10,000	10,000	ND<0.2	ND<2.2	ND<0.2	ND<0.2	ND<12	ND<0.2	ND<0.2	ND<0.4	ND<0.9	ND<0.2	ND<0.2	ND<0.2	ND<0.3	ND<0.4	**0.3**	**8.5**	ND<0.2	ND<1.1	ND<4.2	ND<4.5	ND<0.2

NOTES:

*Only compounds with results above the laboratory reporting limit are summarized

1 - Maine Department of Environmental Protection (DEP) Remediation Guidelines for Petroleum Contaminated Sites in Maine, Tier 2 Soil Remediation Guidelines for Petroleum Target Compounds and Hydrocarbon Fractions, Excavation Construction Worker, May 23, 2014

2 - Maine DEP Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances, Construction Worker, February 5, 2016

Southbound service plaza borings indicated by SB-S#, northbound service plaza borings indicated by SB-N#

J - result is an estimated concentration

mg/kg - milligrams per kilogram

NE - not established

ND<0.2 - Results were below the laboratory reporting limits, laboratory reporting limit shown

Bold Exceeds laboratory reporting limit

Exceeds applicable comparison criteria

Table 3
Summary of Groundwater Analytical Results
Kennebunk Service Plaza
Maine Turnpike, Kennebunk, Maine

Parameter*	Comparison Criteria (µg/L)		Sample ID / Sample Date					
	Petroleum Guidelines[1]	RAGs/ Construction Worker[2]	SB-S1	SB-S5	SB-S9	SB-N4	SB-N9	SB-N11
			4/12/2018	4/12/2018	4/12/2018	4/13/2018	4/13/2018	4/13/2018
Extractable Petroleum Hydrocarbons (EPH) by MassDEP Method 04-1.1 (µg/L)								
C9-C18 aliphatics	700	1,900	ND<100 J	ND<100 J	**140 J**	ND<100 J	ND<100 J	**150 J**
C19-C36 aliphatics	10,000	59,000,000	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100
naphthalene	10	9.7	**61**	ND<1.0	**4.7**	ND<1.0	**13**	**4.7**
2-methylnaphthalene	30	10	**22**	ND<1.0	**16**	ND<1.0	**4.3**	**26**
Volatile Petroleum Hydrocarbons (VPH) by MassDEP Method 04-1.1 (µg/L)								
C5-C8 alipahtics	300	490	**4900**	**5300**	**2000**	**120**	ND<500	**1600**
C9-C10 aromatics	200	1,400	**2900**	**2000**	**1900**	ND<100	**1200**	**6400**
benzene	4.0	44	ND<10	ND<5	ND<5	ND<1	**140**	ND<10
toluene	600	12,000	**1300**	ND<10	ND<10	ND<2	**160**	ND<20
ethylbenzene	30	1,500	**620**	ND<10	ND<10	ND<2	**150**	**27**
total xylenes	1,000	790	**2470**	ND<10	ND<10	ND<2	**680**	**39**
naphthalene	10	9.7	**140**	ND<25	ND<25	ND<5	**28**	ND<50

NOTES:

*Only compounds with results above the laboratory reporting limit are summarized

1 - Maine Department of Environmental Protection (DEP) Remediation Guidelines for Petroleum Contaminated Sites in Maine, Tier 1 Statewide Groundwater & Drinking Water Remediation Guidelines for Petroleum Related Compoundsb May 23, 2014.

2 - Maine DEP Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances, Construction Worker, February 5, 2016

Southbound service plaza borings indicated by SB-S#, northbound service plaza borings indicated by SB-N#

µg/L - micrograms per liter

NE - not established

ND<0.2 - Results were below the laboratory reporting limits, laboratory reporting limit shown

Bold Exceeds laboratory reporting limit

Exceeds applicable comparison criteria

Laboratory reporting limit exceeds comparison criteria

ATTACHMENT B

BORING LOGS

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-N1

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 5 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION 6 **GROUND ELEVATION** NA
NOTES Shake Test (5-7'): Undetected

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/43	NA	0.0			0-11" ASPHALT	
			0.0			11-43" Light brown fine to coarse subrounded SAND and SILT, trace subangular fine Gravel, iron staining from 37-40, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/40		0.0			0-9" Light gray fine SAND and SILT, wet	
			1.88	SB-N1 (5-7/6)		9-34" Dark brown PEAT, wet	
			0.1				
			HS:15.2				
			0.0				
			0.0			34-40" Light gray fine SAND and SILT, wet	
10			0.0			End of boring at 10 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N2

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 5 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Shake Test (5-7'): Slightly Positive

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/28	NA	0.0			0-13" CONCRETE and ASPHALT	
			0.0			13-28" Medium brown fine to coarse subrounded SAND, moist, strong petroleum odor	
			0.0				
			HS:67.4				
			2.24				
			18.7				
5	60/26		53.4			0-26" Medium brown fine to coarse subrounded SAND, moist, strong petroleum odor	
			18.5	SB-N2 (5-7/5)			
			3.5				
			HS:48				
			2.5				
			2.0				
10						End of boring at 10 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N3
PAGE 1 OF 1

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 5 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/37	NA	0.0			0-9" ASPHALT	
			0.0			9-37" Light brown medium to coarse subrounded SAND, trace subrounded fine Gravel, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/36		0.59			0-6" Light brown medium to coarse subrounded SAND, trace subrounded fine Gravel, moist, loose	
			1.36	SB-N3 (5-7/6)		6-10" Dark brown fine SAND and SILT, wet, slight petroleum odor	
			1.02			10-36 "Light brown fine to medium SAND, some Silt, wet	
			HS:4.16				
			0.1				
			0.1				
10	60/9		0.0			0-9" Light brown fine to medium SAND and SILT, wet	
			0.0				
			0.0				
			HS:1.92				
			0.0				
			0.0				
15			0.0			End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N4

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 5 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Shake Test (5-7'): Positive

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/35	NA	0.1			0-8" ASPHALT	Well Finish:
			0.15			8-23" Medium brown fine to coarse subangular SAND, some subangular fine Gravel, moist, loose	
			0.05				Native soil, no annulus; groundwater collected from drill tooling
			0.06			23-29" Light brown fine SAND and SILT, trace subangular fine Gravel, moist, loose	
			0.05			29-31" Dark brown PEAT, moist	
						31-35" Light gray fine SAND and SILT, moist, loose	
5	60/45		4.26			0-13" Dark brown PEAT, wet	
			65.1	SB-N4 (5-7/6)			8' Macrocore Casing
			HS:974				
			97.0			13-45" Light brown fine SAND and SILT, trace subrounded fine Gravel, wet, petroleum odor	
			0.86				
			HS:29.1				
			0.5				
10	60/55		0.3			0-55" Light brown fine SAND and SILT, trace subrounded fine Gravel, wet, petroleum odor	
			0.1				
			HS:14.1				
			0.3				4' Screen
			0.2				
			0.1				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N5

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 4 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Insufficient volume for sample or head space

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/26	NA	0.0			0-15" ASPHALT	
			0.0			15-26" Light gray angular fine GRAVEL, trace fine Sand, dry	
			1.09				
			HS:1.04				
			1.26				
	48/6		0.7			0-6" Light gray angular fine GRAVEL, trace fine Sand, wet	
5			0.0				
			0.0				
			0.0				
						No recovery on S-3, end of boring at 8 feet below ground surface (no refusal)	
10							
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N6

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 4 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Insufficient volume for sample or headspace

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/18	NA	0.0			0-9" ASPHALT	
			0.0			9-18" Light gray angular fine GRAVEL, trace fine Sand, dry	
			0.0				
			0.0				
	48/5		0.0			0-5" Light gray medium fine SAND and SILT, subangular coarse Sand and fine Gravel, wet	
5			0.0				
			0.0				
			0.0				
						End of boring at 8 feet below ground surface	
10							
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N7

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 4 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Insufficient volume for sample or headspace

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/24	NA	0.0			0-6" ASPHALT	
			0.0			6-24" Gray angular fine GRAVEL, little light brown fine to coarse Sand, dry	
			0.0				
			HS:0.12				
			0.0				
	48/3		0.0			0-3" Gray angular fine GRAVEL, little light brown fine to coarse Sand, dry	
5			0.0				
			0.0				
			0.0				
						End of boring at 8 feet below ground surface (no refusal)	
10							
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N8

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 8 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/33		0.0			0-14" ASPHALT and CONCRETE	
			0.0			14-33" Medium brown subangular fine to coarse SAND, some subangular Gravel, moist	
			0.1				
			HS:0.34				
	48/4		12.6			0-4" Brown fine SAND and SILT, moist	
5							
			1.2				
	48/32		0.85			0-19" Light brown fine SAND and SILT, wet	
			0.75	SB-N8 (8-10/8)			
			HS:3.45				
10			0.65			19-32" Gray/brown fine to medium SAND and SILT, wet	
						End of boring at 12 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N9

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 8 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Shake Test (6-8'): Undetected

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/36	NA	5.19			0-9" ASPHALT	Well Finish:
			0.0			9-36" Light brown fine to medium SAND and SILT, trace subangular fine Gravel, moist	
			0.0				Native soil, no annulus; groundwater collected from drill tooling
			HS:0.22				
			0.0				
	48/27		0.0			0-8" Brown/gray fine SAND and SILT, moist	8' Macrocore Casing
5			0.54			8-16 Gray fine SAND and SILT, moist	
			25.0				
			1179			16-27 Dark brown PEAT, petroleum odor, moist	
			29.5	SB-N9 (6-8/8)			
	48/29		1.78			0-12 Medium brown fine to medium SAND and SILT, wet	
			2.96				
10			39.7			12-29 Light brown fine to coarse subrounded SAND and SILT, wet	4' Screen
			29.3				
			6.1				
						End of boring at 12 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N10

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 6 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Shake Test (6-8'): Saturated

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/36	NA	0.0			0-13" ASPHALT and CONCRETE	
			0.0			13-36" Light brown fine to medium SAND and SILT, trace fine to medium subrounded Gravel, moist	
			0.0				
			HS:11.5				
			0.0				
	48/34		15.4			0-34" Light gray fine SAND and SILT, band of PEAT from 30-32, petroleum odor, wet	
5			92.4				
			HS:968				
			95.2				
			98.3	SB-N10 (6-8/7)			
	48/34		5.38			0-34" Light brown fine to medium SAND and SILT, petroleum odor, wet	
			7.37				
			HS:16.4				
10			11.5				
			12.3				
						End of boring at 12 feet below ground surface (no refusal)	
15						SB-N# Samples were collected from Northbound SB-S# Samples were collected from Southbound HS: Headspace readings	

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Soil Boring Log

SB-N11

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 8 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Shake Test (6-8'): Slightly Positive

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/36	NA	2.17			0-12" ASPHALT	Well Finish:
			3.13			12-36" Light brown fine to coarse subrounded SAND and SILT, moist	
			2.15				Native soil, no annulus; groundwater collected from drill tooling
			HS:1.25				
			2.12				
	48/33		2.17			0-6" Light brown fine to coarse subrounded SAND and SILT, moist	8' Macrocore Casing
			HS:16.1				
5			5.32			6-24" Light gray fine SAND and SILT, moist	
			364				
			112	SB-N11 (6-8/6)		24-33" Dark brown PEAT	
			HS:1082				
	48/35		0.74			0-35" Light brown/gray fine to coarse subrounded SAND and SILT, wet	
			2.17				
10			4.44				4' Screen
			HS:8.07				
			2.65				
						End of boring at 12 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Soil Boring Log

SB-N12

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 8 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/35	NA	2.43			0-10" ASPHALT	
			2.16			10-35" Light brown fine to coarse subrounded SAND and SILT, moist	
			2.09				
			HS:1.22				
			2.04				
	48/28		1.93			0-22" Light brown fine to coarse subrounded SAND and SILT, moist	
5			1.88				
			1.76				
			HS:1.94			22-28" Dark brown PEAT, moist	
			1.82				
	48/34		1.53			0-8" Dark brown PEAT, wet	
			1.49	SB-N12 (8-10/8)		8-18" Orange/brown fine to coarse subrounded SAND, wet	
10			0.45			18-34" Light brown fine SAND and SILT, wet	
			HS:0.78				
			1.45				
						End of boring at 12 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-N13

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/13/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 4 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Insufficient volume for sample or headspace

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	48/24	NA	0.0			0-14" CONCRETE and ASPHALT	
			0.0			14-24" Light gray angular fine GRAVEL with gray Sand and Silt matrix, moist	
			0.0				
			0.0				
	48/5		0.0			0-5" Light gray angular fine GRAVEL with gray Sand and Silt matrix, wet	
5			0.0				
			0.0				
			0.0				
	48/4		0.0			0-4" Light gray angular fine GRAVEL with gray Sand and Silt matrix, wet	
			0.0				
10			0.0				
			0.0				
						End of boring at 12 feet below ground surface (no refusal)	
15							

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

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Westbrook, Maine 04092
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Soil Boring Log

SB-S1

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Shake Test (10-12'): Undetected

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/42	NA	0.0			0-10 ASPHALT	Well Finish:
			0.0			10-29 Medium brown fine to coarse subrounded SAND, moist, loose	
			0.0				Native soil, no annulus; groundwater collected from drill tooling
			0.0			29-42 Light brown fine to coarse subrounded SAND, moist, loose	
			0.0				
5	60/33		0.0			0-33 Light brown fine to coarse subrounded SAND, moist, loose	11' Macrocore Casing
			0.0				
			0.0				
			0.0				
			0.0				
10	60/51		0.0			0-3 Light brown fine to coarse subrounded SAND, moist, loose	
			HS:777			3-13 Dark gray fine SAND, wet, loose	
			0.0	SB-S1(10-12)			
			0.0			13-28 Medium gray fine to medium SAND and SILT, wet, loose	
			0.0			28-35 Dark gray fine SAND and SILT, wet, loose	4' Screen
			0.0			35-51 Light brown fine SAND and SILT, wet, loose	
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S2

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/43	NA	0.0			0-11" ASPHALT	
			0.0			11-25" Light brown fine to medium SAND, moist, loose	
			0.0				
			0.0			25-43" Medium brown fine to medium SAND, moist, loose	
			0.0				
5	60/38		0.0			0-38" Light brown fine to medium SAND, moist, loose	
			0.0				
			0.0				
			0.0				
			0.0				
10	60/30		0.0			0-50" Light brown fine to medium SAND, wet, loose	
			0.0	SB-S2 (10-12)			
			HS:6.26				
			0.0				
			0.0				
			HS:1.27				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S3

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/41	NA	0.0			0-11" CONCRETE	
			0.0			11-31" Medium brown fine to medium SAND, loose, moist	
			0.0				
			0.0				
			0.0			31-41" Brown/gray CLAY, relatively dense compared to above, moist	
5	60/27		0.0			0-11" Brown/gray CLAY, relatively dense compared to above, moist	
			0.0				
			0.0			11-27" Brown/gray medium to coarse subrounded SAND, little subrounded fine Gravel, moist, loose	
			0.0				
			0.0				
10	60/43		0.0			0-9" Brown fine angular fractured GRAVEL, trace fine Sand, wet	
			0.0	SB-S3 (10-12)		9-43" Light brown fine to medium SAND, wet, loose	
			0.0				
			0.0				
			0.0				
15			0.0			End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S4

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/43	NA	0.0			0-10 ASPHALT	
			0.0			10-43 Light brown fine to coarse subrounded SAND, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/39		0.0			0-39 Light brown fine to coarse subrounded SAND, moist, loose	
			0.0				
			0.0				
			0.0				
			0.0				
10	60/45		0.0			0-45 Light brown fine to coarse subrounded SAND, moist, loose	
			0.0	SB-S4 (10-12)			
			0.0				
			0.0				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S5

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Shake Test (10-11'): Slightly Positive

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/48	NA	0.0			0-9" CONCRETE	Well Finish:
			0.0			9-22" Dark brown fine to coarse SAND, moist, loose	
			0.0			22-48" Light brown fine to medium SAND, moist, loose	Native soil, no annulus; groundwater collected from drill tooling
			0.0				
			0.0				
5	60/36		0.0			0-36" Light brown fine to medium SAND, moist, loose	11' Macrocore Casing
			0.0				
			0.0				
			0.0				
			0.0				
10	60/40		175	SB-S5 (10-11)		0-12" Medium gray fine to medium SAND, wet, loose, petroleum odor	
			HS:834				
			412			12-40" Light brown fine to medium SAND, wet, loose	
			3.2				4' Screen
			2.7				
			HS:78.5				
			2.1				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
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Fax: 207-887-1051

Soil Boring Log

SB-S6

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/28		0.1			0-8" CONCRETE	
			0.1			8-28" Brown fine to coarse subangular SAND, some subangular fine Gravel, moist, loose [fill]	
			0.1				
			0.2				
			0.2				
5	60/11		0.2			0-11" Brown fine to coarse subangular SAND, some subangular fine Gravel, moist, loose [fill]	
			0.2				
			0.2				
			0.3				
			0.3				
10	60/15		0.3			0-15" Light brown fine to coarse SAND, loose, wet	
			0.3	SB-S6 (10-11)			
			0.3				
			0.3				
			0.3				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S7

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* Not Encountered **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/32	NA	0.0			0-9" CONCRETE	
			0.0			9-32" Light brown fine to coarse subangular SAND, some fine subangular Gravel, moist, loose, apparent fill	
			0.0				
			0.0				
			0.0				
5	60/9		0.0			0-9" light brown fine to coarse subangular SAND, some fine subangular Gravel, moist, loose, [fill]	
			0.0				
			0.0				
			0.0				
			0.0	SB-S7 (9-10)		Sample was collected at the groundwater interface	
10	60/0		0.0			No Recovery	
			0.0				
			0.0				
			0.0				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S8

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES Shake Test (10-12'): Undetected

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0						0-9" ASPHALT	
	60/26	NA	0.0			9-26" Light brown fine to medium SAND, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/20		0.0			0-20" Light brown fine to medium SAND, moist, loose	
			3.12				
			2.76				
			HS:2.61				
			3.91				
			3.62				
10	60/40		15.5			0-40" Light brown fine to medium SAND, wet, loose, slight petroleum odor from 10-12'	
			36.5	SB-S8 (10-12)			
			HS:465				
			2.94				
			3.18				
			HS:4.76				
			3.20				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S9

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS Temporary Well Installed
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES Shake Test (10-12'): Slightly Positive

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/26	NA	0.0			0-9" ASPHALT	Well Finish:
			0.0			9-26" Light brown medium subrounded to subangular GRAVEL and coarse SAND, trace fine to medium Sand, loose, moist	
			0.0				Native soil, no annulus; groundwater collected from drill tooling
			0.0				
			0.0				
5	60/13		0.0			0-13" Light brown medium subrounded to subangular GRAVEL and coarse SAND, trace fine to medium Sand, loose, moist	← 11' Macrocore Casing
			0.0				
			0.0				
			0.0				
			0.0				
10	60/23		181			0-23" Dark brown fine to medium SAND and SILT, wet, loose	
			306	SB-S9 (10-12)			
			176				
			HS:1181				← 4' Screen
			39.2				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S10

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION **GROUND ELEVATION** NA
NOTES

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/28	NA	0.0			0-9" ASPHALT	
			0.0			9-28" Medium brown fine to medium SAND, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/11		0.0			0-11" Medium brown fine to medium SAND, moist, loose	
			0.0				
			0.0				
			0.0				
			0.0				
10	60/20		0.0			0-20" Medium brown fine to medium SAND, wet, loose	
			0.0	SB-S10 (10-12)			
			0.0				
			HS:17.6				
			0.0				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S11

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/38	NA	0.0			0-12" ASPHALT	
			0.0			12-38" Brown/black fine to coarse SAND, Some fine angular Gravel, dry, loose	
			0.0				
			0.0				
			0.0				
5	60/35		0.0			0-35" Light brown fine to medium SAND, moist, loose	
			0.0				
			0.0				
			0.0				
			0.0				
10	60/37		0.0			0-37" Light brown fine to medium SAND, moist, loose	
			0.0	SB-S11 (10-12/11)			
			0.0				
			0.0				
			0.0				
15			0.0			End of boring at 15 feet below ground surface (no refusal).	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

Credere Associates, LLC
776 Main Street
Westbrook, Maine 04092
Phone: 207-828-1272
Fax: 207-887-1051

Soil Boring Log

SB-S12

CLIENT HNTB
PROJECT NAME Kennebunk Service Plaza
PROJECT # 18001445
PROJECT LOCATION Kennebunk, ME
DATE STARTED 4/12/18 **LOGGED BY** S. Gannon
DEPTH TO WATER* 10 **DIAMETER** 1.5"
CONTRACTOR EPI/Mike Fournier
WELL MATERIALS NA
DRILLING METHOD Direct Push
ANNULUS MATERIALS NA
DRILLING EQUIPMENT Geoprobe 6712DT
TOC ELEVATION _____ **GROUND ELEVATION** NA
NOTES _____

Depth (ft)	Penetration/ Recovery (in)	Blow Counts	Field Screening (ppm)	Lab Analytical Sample	Graphic Log	LITHOLOGY	WELL DIAGRAM
0	60/46	NA	0.0			0-9" ASPHALT	
			0.0			9-46" Light brown fine SAND, little subangular to subrounded coarse Sand, moist, loose	
			0.0				
			0.0				
			0.0				
5	60/32		0.0			0-32" Light brown fine SAND, little subangular to subrounded coarse Sand, moist, loose	
			0.0				
			0.0				
			0.0				
			0.0				
10	60/40		0.0			0-40" Light brown fine SAND, little subangular to subrounded coarse Sand, wet, loost	
			0.0	SB-S12 (10-12)			
			0.0				
			0.0				
			0.0				
15						End of boring at 15 feet below ground surface (no refusal)	

SB-N# Samples were collected from Northbound
SB-S# Samples were collected from Southbound
HS: Headspace readings

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Judd Newcomb
CREDERE Associates
776 Main Street
Westbrook, ME 04092

PO Number: None
Job ID: 44005
Date Received: 4/16/18

Project: Kennebunk Service Plaza Northbound 18001445

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

(for)

Sue Sylvester
Principal, General Manager

Date of Approval: 4/27/2018
Total number of pages: 41

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Kennebunk Service Plaza Northbound 18001445

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
SB-N3(5-7)	Solid	4/13/2018 8:55	44005-001	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N1(5-7)	Solid	4/13/2018 9:35	44005-002	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N2(5-7)	Solid	4/13/2018 9:55	44005-003	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N4(5-7)	Solid	4/13/2018 10:15	44005-004	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N4	Water	4/13/2018 12:00	44005-005	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
SB-N8(8-10)	Solid	4/13/2018 12:35	44005-006	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N9(6-8)	Solid	4/13/2018 12:50	44005-007	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N10(6-8)	Solid	4/13/2018 13:05	44005-008	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N11(6-8)	Solid	4/13/2018 13:40	44005-009	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N12(8-10)	Solid	4/13/2018 14:00	44005-010	
				EPH in solids by MADEP Method
				VPH in solids by MA DEP Method
SB-N11	Water	4/13/2018 14:55	44005-011	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
SB-N9	Water	4/13/2018 15:35	44005-012	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
Trip Blank	Water	4/13/2018 0:00	44005-013	
				VPH in water by MA DEP Method

Absolute Resource associates

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-001

Sample ID: SB-N3(5-7)

Matrix: Solid Percent Dry: 86.8% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.6 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 8:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
Unadjusted C9-C12 Aliphatics	**13**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
toluene	**0.1**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
ethylbenzene	**0.1**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
m&p-xylenes	**0.9**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
o-xylene	**0.4**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
naphthalene	**0.3**	0.2	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
C9-C10 Aromatics	**9**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**114**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**100**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH
a,a,a-trifluorotoluene SUR	**96**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:32	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-002

Sample ID: SB-N1(5-7)

Matrix: Solid Percent Dry: 74.7% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.61 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 9:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**7**	6	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
Unadjusted C9-C12 Aliphatics	**7**	6	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
naphthalene	< 0.3	0.3	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
C5-C8 Aliphatics	**7**	6	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
C9-C12 Aliphatics	< 6	6	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
C9-C10 Aromatics	< 6	6	ug/g	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**96**	70-130	%	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**86**	70-130	%	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH
a,a,a-trifluorotoluene SUR	**99**	70-130	%	1	LMM	4/18/18	10590	4/20/18	9:01	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-003

Sample ID: SB-N2(5-7)

Matrix: Solid Percent Dry: 87.2% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.5 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 9:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**130**	7	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
Unadjusted C9-C12 Aliphatics	**72**	7	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
benzene	< 0.1	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
toluene	< 0.1	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
ethylbenzene	**0.2**	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
m&p-xylenes	**2.2**	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
o-xylene	< 0.1	0.1	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
naphthalene	< 0.4	0.4	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
C5-C8 Aliphatics	**130**	7	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
C9-C12 Aliphatics	**23**	7	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
C9-C10 Aromatics	**46**	7	ug/g	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**120**	70-130	%	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**101**	70-130	%	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH
a,a,a-trifluorotoluene SUR	**167** *	70-130	%	2	LMM	4/18/18	10590	4/21/18	1:41	MA VPH

**** The surrogate showed recovery outside the acceptance limits as a result of hydrocarbons present in the sample.***

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-004

Sample ID: SB-N4(5-7)

Matrix: Solid Percent Dry: 80% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.55 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 10:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**430**	94	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
Unadjusted C9-C12 Aliphatics	**1400**	94	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
methyl t-butyl ether (MTBE)	< 1.9	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
benzene	< 1.9	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
toluene	< 1.9	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
ethylbenzene	**2.8**	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
m&p-xylenes	**23**	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
o-xylene	< 1.9	1.9	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
naphthalene	**8.5**	4.7	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
C5-C8 Aliphatics	**430**	94	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
C9-C12 Aliphatics	**350**	94	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
C9-C10 Aromatics	**980**	94	ug/g	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**116**	70-130	%	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**96**	70-130	%	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH
a,a,a-trifluorotoluene SUR	**DOR**	70-130	%	20	LMM	4/18/18	10590	4/21/18	6:33	MA VPH

DOR = Diluted out of range.

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-005

Sample ID: SB-N4

Matrix: Water

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**120**	100	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
Unadjusted C9-C12 Aliphatics	**110**	100	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
benzene	< 1	1	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
toluene	< 2	2	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
ethylbenzene	< 2	2	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
m&p-xylenes	< 2	2	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
o-xylene	< 2	2	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
naphthalene	< 5	5	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
C5-C8 Aliphatics	**120**	100	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
C9-C12 Aliphatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
C9-C10 Aromatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	7:04	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**99**	70-130	%	1	LMM		1800899	4/20/18	7:04	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**87**	70-130	%	1	LMM		1800899	4/20/18	7:04	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-006

Sample ID: SB-N8(8-10)

Matrix: Solid Percent Dry: 84.7% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.53 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 12:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**6**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
Unadjusted C9-C12 Aliphatics	**15**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
m&p-xylenes	**0.9**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
o-xylene	**0.4**	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
C5-C8 Aliphatics	**6**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
C9-C12 Aliphatics	**4**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
C9-C10 Aromatics	**9**	4	ug/g	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**98**	70-130	%	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**87**	70-130	%	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH
a,a,a-trifluorotoluene SUR	**97**	70-130	%	1	LMM	4/18/18	10590	4/20/18	10:00	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-007

Sample ID: SB-N9(6-8)

Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.59 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 12:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**460**	22	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
Unadjusted C9-C12 Aliphatics	**440**	22	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
methyl t-butyl ether (MTBE)	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
benzene	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
toluene	**0.6**	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
ethylbenzene	**1.0**	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
m&p-xylenes	**8.4**	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
o-xylene	**3.6**	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
naphthalene	< 1.1	1.1	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
C5-C8 Aliphatics	**460**	22	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
C9-C12 Aliphatics	**170**	22	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
C9-C10 Aromatics	**260**	22	ug/g	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**110**	70-130	%	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**93**	70-130	%	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH
a,a,a-trifluorotoluene SUR	**171** *	70-130	%	5	LMM	4/18/18	10590	4/21/18	2:40	MA VPH

**** The surrogate showed recovery outside the acceptance limits as a result of hydrocarbons present in the sample.***

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-008

Sample ID: SB-N10(6-8)

Matrix: Solid Percent Dry: 82.9% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.53 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 13:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**1600**	85	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
Unadjusted C9-C12 Aliphatics	**1500**	85	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
methyl t-butyl ether (MTBE)	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
benzene	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
toluene	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
ethylbenzene	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
m&p-xylenes	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
o-xylene	< 1.7	1.7	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
naphthalene	< 4.2	4.2	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
C5-C8 Aliphatics	**1600**	85	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
C9-C12 Aliphatics	**210**	85	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
C9-C10 Aromatics	**1300**	85	ug/g	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**115**	70-130	%	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**96**	70-130	%	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH
a,a,a-trifluorotoluene SUR	**DOR**	70-130	%	20	LMM	4/18/18	10590	4/21/18	5:34	MA VPH

DOR = Diluted out of range.

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-009

Sample ID: SB-N11(6-8)

Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.58 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**290**	90	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
Unadjusted C9-C12 Aliphatics	**190**	90	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
methyl t-butyl ether (MTBE)	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
benzene	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
toluene	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
ethylbenzene	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
m&p-xylenes	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
o-xylene	< 1.8	1.8	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
naphthalene	< 4.5	4.5	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
C5-C8 Aliphatics	**290**	90	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
C9-C12 Aliphatics	**120**	90	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
C9-C10 Aromatics	< 90	90	ug/g	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**104**	70-130	%	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**101**	70-130	%	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH
a,a,a-trifluorotoluene SUR	**DOR**	70-130	%	20	LMM	4/19/18	10596	4/27/18	0:42	MA VPH

DOR = Diluted out of range.

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-010

Sample ID: SB-N12(8-10)

Matrix: Solid Percent Dry: 83.4% Results expressed on a dry weight basis.

Samples prepared in methanol at a ratio of 0.59 mL MeOH/g soil.

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 14:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
Unadjusted C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
C9-C10 Aromatics	< 5	5	ug/g	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**111**	70-130	%	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**91**	70-130	%	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH
a,a,a-trifluorotoluene SUR	**103**	70-130	%	1	LMM	4/19/18	10596	4/21/18	22:35	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-011

Sample ID: SB-N11

Matrix: Water

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**1600**	1000	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
Unadjusted C9-C12 Aliphatics	**6300**	1000	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
methyl t-butyl ether (MTBE)	< 20	20	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
benzene	< 10	10	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
toluene	< 20	20	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
ethylbenzene	**27**	20	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
m&p-xylenes	**39**	20	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
o-xylene	< 20	20	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
naphthalene	< 50	50	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
C5-C8 Aliphatics	**1600**	1000	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
C9-C12 Aliphatics	< 1000	1000	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
C9-C10 Aromatics	**6400**	1000	ug/L	10	LMM		1800909	4/21/18	18:42	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**109**	70-130	%	10	LMM		1800909	4/21/18	18:42	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**89**	70-130	%	10	LMM		1800909	4/21/18	18:42	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-012

Sample ID: SB-N9

Matrix: Water

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 15:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**640**	500	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
Unadjusted C9-C12 Aliphatics	**2100**	500	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
methyl t-butyl ether (MTBE)	< 10	10	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
benzene	**140**	5	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
toluene	**160**	10	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
ethylbenzene	**150**	10	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
m&p-xylenes	**460**	10	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
o-xylene	**220**	10	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
naphthalene	**28**	25	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
C5-C8 Aliphatics	< 500	500	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
C9-C12 Aliphatics	< 500	500	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
C9-C10 Aromatics	**1200**	500	ug/L	5	LMM		1800909	4/21/18	15:42	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**112**	70-130	%	5	LMM		1800909	4/21/18	15:42	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**91**	70-130	%	5	LMM		1800909	4/21/18	15:42	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-013

Sample ID: Trip Blank

Matrix: Water

Received on ice at 2˚C, in satisfactory condition.

Sampled: 4/13/18 0:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
Unadjusted C9-C12 Aliphatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
benzene	< 1	1	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
toluene	< 2	2	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
ethylbenzene	< 2	2	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
m&p-xylenes	< 2	2	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
o-xylene	< 2	2	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
naphthalene	< 5	5	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
C5-C8 Aliphatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
C9-C12 Aliphatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
C9-C10 Aromatics	< 100	100	ug/L	1	LMM		1800899	4/20/18	3:40	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**103**	70-130	%	1	LMM		1800899	4/20/18	3:40	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**91**	70-130	%	1	LMM		1800899	4/20/18	3:40	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-001

Sample ID: SB-N3(5-7)

Matrix: Solid Percent Dry: 86.8% Results expressed on a dry weight basis.

Sampled: 4/13/18 8:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	2:34	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	0:08	MA EPH
C9-C18 Aliphatics	< 22 J	22	ug/g	1	AAG	4/18/18	10586	4/24/18	9:32	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/24/18	9:32	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	0:08	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**58**	40-140	%	1	AAG	4/18/18	10586	4/24/18	9:32	MA EPH
o-terphenyl SUR	**75**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:08	MA EPH
2-fluorobiphenyl SUR	**78**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:08	MA EPH
2-bromonaphthalene SUR	**78**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:08	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-002

Sample ID: SB-N1(5-7)

Matrix: Solid Percent Dry: 74.7% Results expressed on a dry weight basis.

Sampled: 4/13/18 9:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
2-methylnaphthalene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
phenanthrene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
acenaphthene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
acenaphthylene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
fluorene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
anthracene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
fluoranthene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
pyrene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
benzo(a)anthracene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
chrysene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
benzo(b)fluoranthene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
benzo(k)fluoranthene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
benzo(a)pyrene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
indeno(1,2,3-cd)pyrene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
dibenzo(a,h)anthracene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
benzo(g,h,i)perylene	< 0.3	0.3	ug/g	1	CL	4/18/18	10586	4/23/18	3:03	MA EPH
Unadjusted C11-C22 Aromatics	< 26	26	ug/g	1	AAG	4/18/18	10586	4/23/18	0:36	MA EPH
C9-C18 Aliphatics	< 26 J	26	ug/g	1	AAG	4/18/18	10586	4/24/18	10:01	MA EPH
C19-C36 Aliphatics	< 26	26	ug/g	1	AAG	4/18/18	10586	4/24/18	10:01	MA EPH
C11-C22 Aromatics	< 26	26	ug/g	1	AAG	4/18/18	10586	4/23/18	0:36	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**68**	40-140	%	1	AAG	4/18/18	10586	4/24/18	10:01	MA EPH
o-terphenyl SUR	**83**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:36	MA EPH
2-fluorobiphenyl SUR	**79**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:36	MA EPH
2-bromonaphthalene SUR	**80**	40-140	%	1	AAG	4/18/18	10586	4/23/18	0:36	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-003

Sample ID: SB-N2(5-7)

Matrix: Solid Percent Dry: 87.2% Results expressed on a dry weight basis.

Sampled: 4/13/18 9:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	3:33	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	1:04	MA EPH
C9-C18 Aliphatics	< 22 J	22	ug/g	1	AAG	4/18/18	10586	4/24/18	10:29	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/24/18	10:29	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	1:04	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**59**	40-140	%	1	AAG	4/18/18	10586	4/24/18	10:29	MA EPH
o-terphenyl SUR	**70**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:04	MA EPH
2-fluorobiphenyl SUR	**79**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:04	MA EPH
2-bromonaphthalene SUR	**79**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:04	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445
Job ID: 44005
Sample#: 44005-004
Sample ID: SB-N4(5-7)
Matrix: Solid Percent Dry: 80% Results expressed on a dry weight basis.
Sampled: 4/13/18 10:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**1.0**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
2-methylnaphthalene	**1.4**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	4:02	MA EPH
Unadjusted C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/23/18	1:32	MA EPH
C9-C18 Aliphatics	**61** J	24	ug/g	1	AAG	4/18/18	10586	4/24/18	10:57	MA EPH
C19-C36 Aliphatics	**37**	24	ug/g	1	AAG	4/18/18	10586	4/24/18	10:57	MA EPH
C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/23/18	1:32	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/18/18	10586	4/24/18	10:57	MA EPH
o-terphenyl SUR	**69**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:32	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:32	MA EPH
2-bromonaphthalene SUR	**76**	40-140	%	1	AAG	4/18/18	10586	4/23/18	1:32	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445
Job ID: 44005
Sample#: 44005-005
Sample ID: SB-N4
Matrix: Water
Sampled: 4/13/18 12:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
2-methylnaphthalene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	4:32	MA EPH
Unadjusted C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	2:00	MA EPH
C9-C18 Aliphatics	< 100 J	100	ug/L	1	AAG	4/18/18	10588	4/24/18	11:26	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/24/18	11:26	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	2:00	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**54**	40-140	%	1	AAG	4/18/18	10588	4/24/18	11:26	MA EPH
o-terphenyl SUR	**71**	40-140	%	1	AAG	4/18/18	10588	4/23/18	2:00	MA EPH
2-fluorobiphenyl SUR	**77**	40-140	%	1	AAG	4/18/18	10588	4/23/18	2:00	MA EPH
2-bromonaphthalene SUR	**78**	40-140	%	1	AAG	4/18/18	10588	4/23/18	2:00	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-006

Sample ID: SB-N8(8-10)

Matrix: Solid Percent Dry: 84.7% Results expressed on a dry weight basis.

Sampled: 4/13/18 12:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:01	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	2:29	MA EPH
C9-C18 Aliphatics	< 22 J	22	ug/g	1	AAG	4/18/18	10586	4/24/18	11:54	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/24/18	11:54	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/18/18	10586	4/23/18	2:29	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**69**	40-140	%	1	AAG	4/18/18	10586	4/24/18	11:54	MA EPH
o-terphenyl SUR	**81**	40-140	%	1	AAG	4/18/18	10586	4/23/18	2:29	MA EPH
2-fluorobiphenyl SUR	**75**	40-140	%	1	AAG	4/18/18	10586	4/23/18	2:29	MA EPH
2-bromonaphthalene SUR	**76**	40-140	%	1	AAG	4/18/18	10586	4/23/18	2:29	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-007

Sample ID: SB-N9(6-8)

Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.

Sampled: 4/13/18 12:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**1.0**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
2-methylnaphthalene	**0.8**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	5:31	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/23/18	19:53	MA EPH
C9-C18 Aliphatics	< 23 J	23	ug/g	1	AAG	4/18/18	10586	4/24/18	13:19	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/24/18	13:19	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/23/18	19:53	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/18/18	10586	4/24/18	13:19	MA EPH
o-terphenyl SUR	**67**	40-140	%	1	AAG	4/18/18	10586	4/23/18	19:53	MA EPH
2-fluorobiphenyl SUR	**75**	40-140	%	1	AAG	4/18/18	10586	4/23/18	19:53	MA EPH
2-bromonaphthalene SUR	**76**	40-140	%	1	AAG	4/18/18	10586	4/23/18	19:53	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-008

Sample ID: SB-N10(6-8)

Matrix: Solid Percent Dry: 82.9% Results expressed on a dry weight basis.

Sampled: 4/13/18 13:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
2-methylnaphthalene	**10**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
phenanthrene	**0.3**	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:00	MA EPH
Unadjusted C11-C22 Aromatics	**150**	24	ug/g	1	AAG	4/18/18	10586	4/23/18	6:30	MA EPH
C9-C18 Aliphatics	**210** J	24	ug/g	1	AAG	4/18/18	10586	4/24/18	13:48	MA EPH
C19-C36 Aliphatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/24/18	13:48	MA EPH
C11-C22 Aromatics	**140**	24	ug/g	1	AAG	4/18/18	10586	4/23/18	6:30	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**57**	40-140	%	1	AAG	4/18/18	10586	4/24/18	13:48	MA EPH
o-terphenyl SUR	**72**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:30	MA EPH
2-fluorobiphenyl SUR	**82**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:30	MA EPH
2-bromonaphthalene SUR	**102**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:30	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445
Job ID: 44005
Sample#: 44005-009
Sample ID: SB-N11(6-8)
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/13/18 13:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	6:30	MA EPH
Unadjusted C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/23/18	6:58	MA EPH
C9-C18 Aliphatics	< 24 J	24	ug/g	1	AAG	4/18/18	10586	4/24/18	14:16	MA EPH
C19-C36 Aliphatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/24/18	14:16	MA EPH
C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/18/18	10586	4/23/18	6:58	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/18/18	10586	4/24/18	14:16	MA EPH
o-terphenyl SUR	**69**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:58	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:58	MA EPH
2-bromonaphthalene SUR	**75**	40-140	%	1	AAG	4/18/18	10586	4/23/18	6:58	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445

Job ID: 44005

Sample#: 44005-010

Sample ID: SB-N12(8-10)

Matrix: Solid Percent Dry: 83.4% Results expressed on a dry weight basis.

Sampled: 4/13/18 14:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/18/18	10586	4/23/18	10:31	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/23/18	7:26	MA EPH
C9-C18 Aliphatics	< 23 J	23	ug/g	1	AAG	4/18/18	10586	4/24/18	14:45	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/24/18	14:45	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/18/18	10586	4/23/18	7:26	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**58**	40-140	%	1	AAG	4/18/18	10586	4/24/18	14:45	MA EPH
o-terphenyl SUR	**69**	40-140	%	1	AAG	4/18/18	10586	4/23/18	7:26	MA EPH
2-fluorobiphenyl SUR	**78**	40-140	%	1	AAG	4/18/18	10586	4/23/18	7:26	MA EPH
2-bromonaphthalene SUR	**80**	40-140	%	1	AAG	4/18/18	10586	4/23/18	7:26	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445
Job ID: 44005
Sample#: 44005-011
Sample ID: SB-N11
Matrix: Water
Sampled: 4/13/18 14:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**4.7**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
2-methylnaphthalene	**26**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:01	MA EPH
Unadjusted C11-C22 Aromatics	**110**	100	ug/L	1	AAG	4/18/18	10588	4/23/18	14:42	MA EPH
C9-C18 Aliphatics	**150** J	100	ug/L	1	AAG	4/18/18	10588	4/24/18	15:13	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/24/18	15:13	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	14:42	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/18/18	10588	4/24/18	15:13	MA EPH
o-terphenyl SUR	**66**	40-140	%	1	AAG	4/18/18	10588	4/23/18	14:42	MA EPH
2-fluorobiphenyl SUR	**75**	40-140	%	1	AAG	4/18/18	10588	4/23/18	14:42	MA EPH
2-bromonaphthalene SUR	**76**	40-140	%	1	AAG	4/18/18	10588	4/23/18	14:42	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Northbound 18001445
Job ID: 44005
Sample#: 44005-012
Sample ID: SB-N9
Matrix: Water
Sampled: 4/13/18 15:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**13**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
2-methylnaphthalene	**4.3**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	11:30	MA EPH
Unadjusted C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	15:10	MA EPH
C9-C18 Aliphatics	< 100 J	100	ug/L	1	AAG	4/18/18	10588	4/24/18	15:42	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/24/18	15:42	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	15:10	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**44**	40-140	%	1	AAG	4/18/18	10588	4/24/18	15:42	MA EPH
o-terphenyl SUR	**53**	40-140	%	1	AAG	4/18/18	10588	4/23/18	15:10	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/18/18	10588	4/23/18	15:10	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AAG	4/18/18	10588	4/23/18	15:10	MA EPH

J = Result is an estimate. See case narrative.

Quality Control Report

124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Case Narrative
Lab # 44005

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 2 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

VPH: Samples 44005-003 and -007 did not meet acceptance criteria for the surrogate, a,a,a-trifluorotoluene, due to co-eluting hydrocarbons.
VPH: The surrogate, a,a,a-trifluorotoluene, was diluted out of the calibration range in the following sample: 44005-004, -008, and -009.

Laboratory Control Sample Results

VOC: The LCS10588 did not meet the acceptance criteria for naphthalene. The recovery was acceptable in the LCSD. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.

EPH: Two of the components (C9 and C10) that make up the range, C9-C18 Aliphatics, for the LCS/D10586 and 10588 were below the acceptance criteria. The overall range concentration is acceptable. The results have been qualified accordingly.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	MB10590	Unadjusted C5-C8 Aliphatics		<	5	ug/g						
		Unadjusted C9-C12 Aliphatics		<	5	ug/g						
		methyl t-butyl ether (MTBE)		<	0.1	ug/g						
		benzene		<	0.1	ug/g						
		toluene		<	0.1	ug/g						
		ethylbenzene		<	0.1	ug/g						
		m&p-xylenes		<	0.1	ug/g						
		o-xylene		<	0.1	ug/g						
		naphthalene		<	0.2	ug/g						
		C5-C8 Aliphatics		<	5	ug/g						
		C9-C12 Aliphatics		<	5	ug/g						
		C9-C10 Aromatics		<	5	ug/g						
		2,5-dibromotoluene as Aromatic SUR			101	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			92	%			70	130		
		a,a,a-trifluorotoluene SUR			85	%			70	130		
MA VPH	MLCS10590	Unadjusted C5-C8 Aliphatics			29.8	ug/g	30	99	70	130		
		Unadjusted C9-C12 Aliphatics			39.1	ug/g	40	98	70	130		
		methyl t-butyl ether (MTBE)			4.6	ug/g	5	93	70	130		
		benzene			4.7	ug/g	5	94	70	130		
		toluene			4.5	ug/g	5	91	70	130		
		ethylbenzene			4.4	ug/g	5	88	70	130		
		m&p-xylenes			8.9	ug/g	10	89	70	130		
		o-xylene			4.3	ug/g	5	86	70	130		
		naphthalene			3.8	ug/g	5	76	70	130		
		C5-C8 Aliphatics			13	ug/g	15	85	70	130		
		C9-C12 Aliphatics			11	ug/g	15	73	70	130		
		C9-C10 Aromatics		<	5.0	ug/g	5	94	70	130		
		2,5-dibromotoluene as Aromatic SUR			109	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			98	%			70	130		
		a,a,a-trifluorotoluene SUR			82	%			70	130		
MA VPH	MLCSD10590	Unadjusted C5-C8 Aliphatics			29.8	ug/g	30	99	70	130	0	25
		Unadjusted C9-C12 Aliphatics			39.9	ug/g	40	100	70	130	2	25
		methyl t-butyl ether (MTBE)			4.5	ug/g	5	90	70	130	3	25
		benzene			4.6	ug/g	5	92	70	130	1	25
		toluene			4.5	ug/g	5	89	70	130	2	25
		ethylbenzene			4.4	ug/g	5	88	70	130	0	25
		m&p-xylenes			8.9	ug/g	10	89	70	130	0	25
		o-xylene			4.3	ug/g	5	87	70	130	0	25
		naphthalene			3.8	ug/g	5	75	70	130	1	25
		C5-C8 Aliphatics			13	ug/g	15	86	70	130	1	25
		C9-C12 Aliphatics			12	ug/g	15	78	70	130	6	25
		C9-C10 Aromatics		<	5.0	ug/g	5	93	70	130	0	25
		2,5-dibromotoluene as Aromatic SUR			110	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			98	%			70	130		
		a,a,a-trifluorotoluene SUR			78	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	MB10596	Unadjusted C5-C8 Aliphatics		<	5	ug/g						
		Unadjusted C9-C12 Aliphatics		<	5	ug/g						
		methyl t-butyl ether (MTBE)		<	0.1	ug/g						
		benzene		<	0.1	ug/g						
		toluene		<	0.1	ug/g						
		ethylbenzene		<	0.1	ug/g						
		m&p-xylenes		<	0.1	ug/g						
		o-xylene		<	0.1	ug/g						
		naphthalene		<	0.2	ug/g						
		C5-C8 Aliphatics		<	5	ug/g						
		C9-C12 Aliphatics		<	5	ug/g						
		C9-C10 Aromatics		<	5	ug/g						
		2,5-dibromotoluene as Aromatic SUR			105	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			90	%			70	130		
		a,a,a-trifluorotoluene SUR			97	%			70	130		
MA VPH	MLCS10596	Unadjusted C5-C8 Aliphatics			30.9	ug/g	30	103	70	130		
		Unadjusted C9-C12 Aliphatics			40.3	ug/g	40	101	70	130		
		methyl t-butyl ether (MTBE)			5.0	ug/g	5	101	70	130		
		benzene			5.1	ug/g	5	103	70	130		
		toluene			5.0	ug/g	5	100	70	130		
		ethylbenzene			4.9	ug/g	5	97	70	130		
		m&p-xylenes			9.9	ug/g	10	99	70	130		
		o-xylene			4.8	ug/g	5	96	70	130		
		naphthalene			4.2	ug/g	5	85	70	130		
		C5-C8 Aliphatics			14	ug/g	15	92	70	130		
		C9-C12 Aliphatics			11	ug/g	15	76	70	130		
		C9-C10 Aromatics			5.2	ug/g	5	104	70	130		
		2,5-dibromotoluene as Aromatic SUR			119	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			100	%			70	130		
		a,a,a-trifluorotoluene SUR			90	%			70	130		
MA VPH	MLCSD10596	Unadjusted C5-C8 Aliphatics			30.3	ug/g	30	101	70	130	2	25
		Unadjusted C9-C12 Aliphatics			39.9	ug/g	40	100	70	130	1	25
		methyl t-butyl ether (MTBE)			4.9	ug/g	5	98	70	130	2	25
		benzene			5.0	ug/g	5	101	70	130	2	25
		toluene			4.9	ug/g	5	98	70	130	2	25
		ethylbenzene			4.8	ug/g	5	96	70	130	1	25
		m&p-xylenes			9.8	ug/g	10	98	70	130	1	25
		o-xylene			4.7	ug/g	5	94	70	130	1	25
		naphthalene			4.2	ug/g	5	84	70	130	1	25
		C5-C8 Aliphatics			13	ug/g	15	90	70	130	2	25
		C9-C12 Aliphatics			11	ug/g	15	76	70	130	1	25
		C9-C10 Aromatics			5.1	ug/g	5	103	70	130	2	25
		2,5-dibromotoluene as Aromatic SUR			115	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			94	%			70	130		
		a,a,a-trifluorotoluene SUR			100	%			70	130		

Method	QC ID	Parameter	Associated Sample	Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
MA VPH	MS10596	Unadjusted C5-C8 Aliphatics	43994-128	20	ug/g	22	79		70	130		
		Unadjusted C9-C12 Aliphatics	43994-128	28	ug/g	30	90		70	130		
		methyl t-butyl ether (MTBE)	43994-128	3.0	ug/g	3.77	79		70	130		
		benzene	43994-128	3.0	ug/g	3.77	81		70	130		
		toluene	43994-128	3.0	ug/g	3.77	80		70	130		
		ethylbenzene	43994-128	3.0	ug/g	3.77	79		70	130		
		m&p-xylenes	43994-128	6.1	ug/g	7.55	81		70	130		
		o-xylene	43994-128	2.9	ug/g	3.77	78		70	130		
		naphthalene	43994-128	2.5	ug/g	3.77	65	*	70	130		
		C5-C8 Aliphatics	43994-128	11	ug/g	11	79		70	130		
		C9-C12 Aliphatics	43994-128	9	ug/g	11	81		70	130		
		C9-C10 Aromatics	43994-128	7	ug/g	3	144	*	70	130		
		2,5-dibromotoluene as Aromatic SUR	43994-128	106	%				70	130		
		2,5-dibromotoluene as Aliphatic SUR	43994-128	91	%				70	130		
		a,a,a-trifluorotoluene SUR	43994-128	91	%				70	130		
MA VPH	MSD10596	Unadjusted C5-C8 Aliphatics	43994-128	16.1	ug/g	19.85	71		70	130	21	50
		Unadjusted C9-C12 Aliphatics	43994-128	22.4	ug/g	26.47	81		70	130	22	50
		methyl t-butyl ether (MTBE)	43994-128	2.5	ug/g	3.30	76		70	130	18	50
		benzene	43994-128	2.6	ug/g	3.30	77		70	130	17	50
		toluene	43994-128	2.5	ug/g	3.30	76		70	130	18	50
		ethylbenzene	43994-128	2.5	ug/g	3.30	75		70	130	19	50
		m&p-xylenes	43994-128	5.0	ug/g	6.61	76		70	130	19	50
		o-xylene	43994-128	2.4	ug/g	3.30	74		70	130	18	50
		naphthalene	43994-128	2.0	ug/g	3.30	61	*	70	130	20	50
		C5-C8 Aliphatics	43994-128	8.5	ug/g	9.92	66	*	70	130	24	50
		C9-C12 Aliphatics	43994-128	7.1	ug/g	9.92	71		70	130	25	50
		C9-C10 Aromatics	43994-128	5.4	ug/g	3.30	122		70	130	23	50
		2,5-dibromotoluene as Aromatic SUR	43994-128	105	%				70	130		
		2,5-dibromotoluene as Aliphatic SUR	43994-128	90	%				70	130		
		a,a,a-trifluorotoluene SUR	43994-128	90	%				70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	BLK1800899	Unadjusted C5-C8 Aliphatics		<	100	ug/L						
		Unadjusted C9-C12 Aliphatics		<	100	ug/L						
		methyl t-butyl ether (MTBE)		<	2	ug/L						
		benzene		<	1	ug/L						
		toluene		<	2	ug/L						
		ethylbenzene		<	2	ug/L						
		m&p-xylenes		<	2	ug/L						
		o-xylene		<	2	ug/L						
		naphthalene		<	5	ug/L						
		C5-C8 Aliphatics		<	100	ug/L						
		C9-C12 Aliphatics		<	100	ug/L						
		C9-C10 Aromatics		<	100	ug/L						
		2,5-dibromotoluene as Aromatic SUR			105	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			91	%			70	130		
MA VPH	LCS1800899	Unadjusted C5-C8 Aliphatics			640	ug/L	600	106	70	130		
		Unadjusted C9-C12 Aliphatics			840	ug/L	800	105	70	130		
		methyl t-butyl ether (MTBE)			100	ug/L	100	101	70	130		
		benzene			100	ug/L	100	103	70	130		
		toluene			100	ug/L	100	102	70	130		
		ethylbenzene			100	ug/L	100	102	70	130		
		m&p-xylenes			210	ug/L	200	104	70	130		
		o-xylene			100	ug/L	100	102	70	130		
		naphthalene			81	ug/L	100	81	70	130		
		C5-C8 Aliphatics			280	ug/L	300	93	70	130		
		C9-C12 Aliphatics			210	ug/L	300	70	70	130		
		C9-C10 Aromatics			110	ug/L	100	108	70	130		
		2,5-dibromotoluene as Aromatic SUR			102	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			89	%			70	130		
MA VPH	LCSD1800899	Unadjusted C5-C8 Aliphatics			630	ug/L	600	104	70	130	2	25
		Unadjusted C9-C12 Aliphatics			880	ug/L	800	110	70	130	4	25
		methyl t-butyl ether (MTBE)			100	ug/L	100	101	70	130	1	25
		benzene			100	ug/L	100	102	70	130	1	25
		toluene			100	ug/L	100	101	70	130	1	25
		ethylbenzene			100	ug/L	100	101	70	130	1	25
		m&p-xylenes			210	ug/L	200	103	70	130	0	25
		o-xylene			100	ug/L	100	102	70	130	0	25
		naphthalene			81	ug/L	100	81	70	130	0	25
		C5-C8 Aliphatics			270	ug/L	300	89	70	130	4	25
		C9-C12 Aliphatics			250	ug/L	300	82	70	130	16	25
		C9-C10 Aromatics			110	ug/L	100	106	70	130	1	25
		2,5-dibromotoluene as Aromatic SUR			107	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			91	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	BLK1800909	Unadjusted C5-C8 Aliphatics		<	100	ug/L						
		Unadjusted C9-C12 Aliphatics		<	100	ug/L						
		methyl t-butyl ether (MTBE)		<	2	ug/L						
		benzene		<	1	ug/L						
		toluene		<	2	ug/L						
		ethylbenzene		<	2	ug/L						
		m&p-xylenes		<	2	ug/L						
		o-xylene		<	2	ug/L						
		naphthalene		<	5	ug/L						
		C5-C8 Aliphatics		<	100	ug/L						
		C9-C12 Aliphatics		<	100	ug/L						
		C9-C10 Aromatics		<	100	ug/L						
		2,5-dibromotoluene as Aromatic SUR			102	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			82	%			70	130		
MA VPH	LCS1800909	Unadjusted C5-C8 Aliphatics			640	ug/L	600	107	70	130		
		Unadjusted C9-C12 Aliphatics			860	ug/L	800	108	70	130		
		methyl t-butyl ether (MTBE)			110	ug/L	100	106	70	130		
		benzene			110	ug/L	100	109	70	130		
		toluene			110	ug/L	100	108	70	130		
		ethylbenzene			110	ug/L	100	108	70	130		
		m&p-xylenes			220	ug/L	200	110	70	130		
		o-xylene			110	ug/L	100	108	70	130		
		naphthalene			77	ug/L	100	77	70	130		
		C5-C8 Aliphatics			280	ug/L	300	93	70	130		
		C9-C12 Aliphatics			230	ug/L	300	75	70	130		
		C9-C10 Aromatics			110	ug/L	100	111	70	130		
		2,5-dibromotoluene as Aromatic SUR			76	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			62	%			70	130		
MA VPH	LCSD1800909	Unadjusted C5-C8 Aliphatics			680	ug/L	600	113	70	130	5	25
		Unadjusted C9-C12 Aliphatics			910	ug/L	800	114	70	130	5	25
		methyl t-butyl ether (MTBE)			110	ug/L	100	111	70	130	5	25
		benzene			120	ug/L	100	115	70	130	5	25
		toluene			110	ug/L	100	114	70	130	6	25
		ethylbenzene			110	ug/L	100	115	70	130	6	25
		m&p-xylenes			230	ug/L	200	117	70	130	6	25
		o-xylene			110	ug/L	100	114	70	130	5	25
		naphthalene			82	ug/L	100	82	70	130	6	25
		C5-C8 Aliphatics			290	ug/L	300	98	70	130	5	25
		C9-C12 Aliphatics			240	ug/L	300	79	70	130	6	25
		C9-C10 Aromatics			120	ug/L	100	119	70	130	6	25
		2,5-dibromotoluene as Aromatic SUR			91	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			74	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA EPH	BLK10586	naphthalene		<	0.2	ug/g						
		2-methylnaphthalene		<	0.2	ug/g						
		phenanthrene		<	0.2	ug/g						
		acenaphthene		<	0.2	ug/g						
		acenaphthylene		<	0.2	ug/g						
		fluorene		<	0.2	ug/g						
		anthracene		<	0.2	ug/g						
		fluoranthene		<	0.2	ug/g						
		pyrene		<	0.2	ug/g						
		benzo(a)anthracene		<	0.2	ug/g						
		chrysene		<	0.2	ug/g						
		benzo(b)fluoranthene		<	0.2	ug/g						
		benzo(k)fluoranthene		<	0.2	ug/g						
		benzo(a)pyrene		<	0.2	ug/g						
		indeno(1,2,3-cd)pyrene		<	0.2	ug/g						
		dibenzo(a,h)anthracene		<	0.2	ug/g						
		benzo(g,h,i)perylene		<	0.2	ug/g						
		Unadjusted C11-C22 Aromatics		<	20	ug/g						
		C9-C18 Aliphatics		<	20	ug/g						
		C19-C36 Aliphatics		<	20	ug/g						
		C11-C22 Aromatics		<	20	ug/g						
		1-chloro-octadecane SUR			60	%			40	140		
		o-terphenyl SUR			71	%			40	140		
		2-fluorobiphenyl SUR			75	%			40	140		
		2-bromonaphthalene SUR			74	%			40	140		
MA EPH	LCS10586	naphthalene			2.8	ug/g	6	47	40	140		
		2-methylnaphthalene			3.2	ug/g	6	53	40	140		
		phenanthrene			3.8	ug/g	6	63	40	140		
		acenaphthene			3.2	ug/g	6	53	40	140		
		acenaphthylene			3.1	ug/g	6	52	40	140		
		fluorene			3.5	ug/g	6	59	40	140		
		anthracene			3.7	ug/g	6	62	40	140		
		fluoranthene			3.9	ug/g	6	65	40	140		
		pyrene			3.2	ug/g	6	54	40	140		
		benzo(a)anthracene			3.9	ug/g	6	64	40	140		
		chrysene			3.9	ug/g	6	66	40	140		
		benzo(b)fluoranthene			3.9	ug/g	6	65	40	140		
		benzo(k)fluoranthene			3.6	ug/g	6	61	40	140		
		benzo(a)pyrene			3.6	ug/g	6	61	40	140		
		indeno(1,2,3-cd)pyrene			3.9	ug/g	6	65	40	140		
		dibenzo(a,h)anthracene			4.1	ug/g	6	68	40	140		
		benzo(g,h,i)perylene			3.8	ug/g	6	63	40	140		
		Unadjusted C11-C22 Aromatics			59	ug/g	102	58	40	140		
		C9-C18 Aliphatics		<	20	ug/g	36	50	40	140		
		C19-C36 Aliphatics			39	ug/g	48	82	40	140		
		C11-C22 Aromatics		<	20	ug/g						
		1-chloro-octadecane SUR			55	%			40	140		
		o-terphenyl SUR			71	%			40	140		
		2-fluorobiphenyl SUR			74	%			40	140		
		2-bromonaphthalene SUR			75	%			40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA EPH	LCSD10586	naphthalene			2.9	ug/g	6	49	40	140	4	25
		2-methylnaphthalene			3.3	ug/g	6	55	40	140	4	25
		phenanthrene			3.9	ug/g	6	65	40	140	3	25
		acenaphthene			3.4	ug/g	6	57	40	140	7	25
		acenaphthylene			3.3	ug/g	6	55	40	140	6	25
		fluorene			3.7	ug/g	6	62	40	140	5	25
		anthracene			3.8	ug/g	6	64	40	140	2	25
		fluoranthene			3.9	ug/g	6	65	40	140	1	25
		pyrene			3.4	ug/g	6	57	40	140	6	25
		benzo(a)anthracene			4.0	ug/g	6	66	40	140	3	25
		chrysene			4.0	ug/g	6	67	40	140	2	25
		benzo(b)fluoranthene			3.9	ug/g	6	65	40	140	0	25
		benzo(k)fluoranthene			4.2	ug/g	6	70	40	140	14	25
		benzo(a)pyrene			3.8	ug/g	6	63	40	140	4	25
		indeno(1,2,3-cd)pyrene			3.9	ug/g	6	64	40	140	1	25
		dibenzo(a,h)anthracene			4.0	ug/g	6	66	40	140	3	25
		benzo(g,h,i)perylene			3.7	ug/g	6	62	40	140	2	25
		Unadjusted C11-C22 Aromatics			62	ug/g	102	61	40	140	4	25
		C9-C18 Aliphatics		<	20	ug/g	36	46	40	140	9	25
		C19-C36 Aliphatics			39	ug/g	48	81	40	140	1	25
		C11-C22 Aromatics		<	20	ug/g						
		1-chloro-octadecane SUR			56	%			40	140		
		o-terphenyl SUR			73	%			40	140		
		2-fluorobiphenyl SUR			78	%			40	140		
		2-bromonaphthalene SUR			80	%			40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
MA EPH	BLK10588	naphthalene		<	1.0	ug/L							
		2-methylnaphthalene		<	1.0	ug/L							
		phenanthrene		<	1.0	ug/L							
		acenaphthene		<	1.0	ug/L							
		acenaphthylene		<	1.0	ug/L							
		fluorene		<	1.0	ug/L							
		anthracene		<	1.0	ug/L							
		fluoranthene		<	1.0	ug/L							
		pyrene		<	1.0	ug/L							
		benzo(a)anthracene		<	1.0	ug/L							
		chrysene		<	1.0	ug/L							
		benzo(b)fluoranthene		<	1.0	ug/L							
		benzo(k)fluoranthene		<	1.0	ug/L							
		benzo(a)pyrene		<	0.4	ug/L							
		indeno(1,2,3-cd)pyrene		<	1.0	ug/L							
		dibenzo(a,h)anthracene		<	1.0	ug/L							
		benzo(g,h,i)perylene		<	1.0	ug/L							
		Unadjusted C11-C22 Aromatics		<	100	ug/L							
		C9-C18 Aliphatics		<	100	ug/L							
		C19-C36 Aliphatics		<	100	ug/L							
		C11-C22 Aromatics		<	100	ug/L							
		1-chloro-octadecane SUR			52	%				40	140		
		o-terphenyl SUR			62	%				40	140		
		2-fluorobiphenyl SUR			72	%				40	140		
		2-bromonaphthalene SUR			72	%				40	140		
MA EPH	LCS10588	naphthalene			23	ug/L	60	39	*	40	140		
		2-methylnaphthalene			27	ug/L	60	45		40	140		
		phenanthrene			36	ug/L	60	60		40	140		
		acenaphthene			31	ug/L	60	51		40	140		
		acenaphthylene			30	ug/L	60	49		40	140		
		fluorene			34	ug/L	60	57		40	140		
		anthracene			34	ug/L	60	56		40	140		
		fluoranthene			38	ug/L	60	63		40	140		
		pyrene			31	ug/L	60	51		40	140		
		benzo(a)anthracene			37	ug/L	60	62		40	140		
		chrysene			38	ug/L	60	64		40	140		
		benzo(b)fluoranthene			37	ug/L	60	61		40	140		
		benzo(k)fluoranthene			38	ug/L	60	64		40	140		
		benzo(a)pyrene			37	ug/L	60	61		40	140		
		indeno(1,2,3-cd)pyrene			34	ug/L	60	56		40	140		
		dibenzo(a,h)anthracene			35	ug/L	60	59		40	140		
		benzo(g,h,i)perylene			32	ug/L	60	53		40	140		
		Unadjusted C11-C22 Aromatics			540	ug/L	1020	53		40	140		
		C9-C18 Aliphatics			150	ug/L	360	42		40	140		
		C19-C36 Aliphatics			380	ug/L	480	80		40	140		
		C11-C22 Aromatics		<	100	ug/L							
		1-chloro-octadecane SUR			59	%				40	140		
		o-terphenyl SUR			59	%				40	140		
		2-fluorobiphenyl SUR			71	%				40	140		
		2-bromonaphthalene SUR			73	%				40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA EPH	LCSD10588	naphthalene			29	ug/L	60	48	40	140	21	25
		2-methylnaphthalene			33	ug/L	60	55	40	140	19	25
		phenanthrene			42	ug/L	60	70	40	140	16	25
		acenaphthene			35	ug/L	60	58	40	140	13	25
		acenaphthylene			34	ug/L	60	56	40	140	13	25
		fluorene			40	ug/L	60	66	40	140	15	25
		anthracene			39	ug/L	60	66	40	140	15	25
		fluoranthene			46	ug/L	60	76	40	140	19	25
		pyrene			35	ug/L	60	59	40	140	14	25
		benzo(a)anthracene			43	ug/L	60	72	40	140	14	25
		chrysene			45	ug/L	60	75	40	140	16	25
		benzo(b)fluoranthene			42	ug/L	60	70	40	140	14	25
		benzo(k)fluoranthene			42	ug/L	60	71	40	140	10	25
		benzo(a)pyrene			42	ug/L	60	70	40	140	14	25
		indeno(1,2,3-cd)pyrene			42	ug/L	60	70	40	140	21	25
		dibenzo(a,h)anthracene			44	ug/L	60	74	40	140	23	25
		benzo(g,h,i)perylene			40	ug/L	60	67	40	140	23	25
		Unadjusted C11-C22 Aromatics			700	ug/L	1020	68	40	140	25	25
		C9-C18 Aliphatics			170	ug/L	360	48	40	140	13	25
		C19-C36 Aliphatics			400	ug/L	480	83	40	140	5	25
		C11-C22 Aromatics		<	100	ug/L						
		1-chloro-octadecane SUR			55	%			40	140		
		o-terphenyl SUR			68	%			40	140		
		2-fluorobiphenyl SUR			75	%			40	140		
		2-bromonaphthalene SUR			77	%			40	140		

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

44005

Company Name: Credere
Company Address: 776 Main St, Westbrook, ME
Report To: Judd Newcomb
Phone #: 207-828-1272
Invoice to:
Email: JNewcomb@credere llc.com
PO #:

Project Name: Kennebunk service plaza Northbound
Project #: 18oc1445
Project Location: NH MA ME VT
Accreditation Required? N/Y:
Protocol: RCRA SDWA NPDES MCP NHDES DOD
Reporting Limits: QAPP GW-1 S-1 EPA DW Other
Quote #
☐ NH Reimbursement Pricing

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 624 ☐ VOC BTEX MtBE, only ☐ VOC 8021VT ☐ VPH MADEP ☐ GRO 8015 ☐ 1,4-Dioxane ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List: ☐ TPH ☐ DRO 8015 ☐ EPH MADEP ☐ TPH Fingerprint ☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB ☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB ☐ O&G 1664 ☐ Mineral O&G 1664 ☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ Apparent Color ☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity ☐ Acidity ☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness ☐ Total Metals-list: ☐ Dissolved Metals-list: ☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ Ferrous Iron ☐ T-Phosphorus ☐ Bacteria P/A ☐ Bacteria MPN ☐ Enterococci ☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Phenols ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride ☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP ☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide Subcontract: ☐ Grain Size ☐ Herbicides ☐ Asbestos ☐ PFAS

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Grab (G) or Composite (C)
44005 01	SB-N3 (5-7)	2		X						X	4.13.18	0855	SG	G
02	SB-N1 (5-7)	2		X						X	4.13.18	0935	SG	
03	SB-N2 (5-7)	2		X						X	4.13.18	0955	SG	
04	SB-N4 (5-7)	2		X						X	4.13.18	1015	SG	
05	SB-N4	3	X			X					4.13.18	1200	SG	
06	SB-N8(8-10)	2		X						X	4/13/18	1235	SG	
07	SB-N9(6-8)	2		X						X	4/13/18	1250	SG	
08	SB-N10(6-8)	2		X						X	4/13/18	1305	SG	
09	SB-N11(6-8)	2		X						X	4/13/18	1340	SG	
10	SB-N12(8-10)	2		X						X	4/13/18	1400	SG	
11	SB-N11	3	X			X					4/13/18	1455	SG	

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard ☐ (10 Business Days)
*Date Needed 1 week

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) JNewcomb@credere llc.com
☐ HARD COPY REQUIRED ☐ EDD

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 2 °C

CUSTODY RECORD
QSD-01 Revision 3/12/18

		Date	Time
Relinquished by Sampler:		4.16.18	1315
Relinquished by:			
Relinquished by:			
Received by:			
Received by:			
Received by Laboratory:		4/16/18	1315

Absolute Resource associates
124 Heritage Avenue #16
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CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

44005

Company Name: Credere
Company Address: 776 Main St. Westbrook, ME
Report To: Judd Newcomb
Phone #: 207-878-1272
Invoice to:
Email: jnewcomb@crederellc.com
PO #:

Project Name: Kennebunk Service Plaza Northbound
Project #: 18001445
Project Location: NH MA (ME) VT
Accreditation Required? N/Y:
Protocol: RCRA SDWA NPDES / MCP NHDES DOD
Reporting Limits: QAPP GW-1 S-1 / EPA DW Other
Quote #
☐ NH Reimbursement Pricing

ANALYSIS REQUEST

☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP
☐ VOC 624 ☐ VOC BTEX MtBE, only ☐ VOC 8021VT
☐ VPH MADEP ☐ GRO 8015 ☐ 1,4-Dioxane
☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:
☐ TPH ☐ DRO 8015 ☐ EPH MADEP ☐ TPH Fingerprint
☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB
☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB
☐ O&G 1664 ☐ Mineral O&G 1664
☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ Apparent Color
☐ TSS ☐ TDS ☐ TVS ☐ Alkalinity ☐ Acidity
☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness
☐ Total Metals-list:
☐ Dissolved Metals-list:
☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ Ferrous Iron
☐ T-Phosphorus ☐ Bacteria P/A ☐ Bacteria MPN ☐ Enterococci
☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Phenols
☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride
☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP
☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide
Subcontract: ☐ Grain Size ☐ Herbicides ☐ Asbestos ☐ PFAS
Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Grab (G) or Composite (C)
12	SB-N9	3	X			X					4/13/18	1535	SG	G
13	Trip Blank	1	X			X								
14	~~Trip Blank~~	~~1~~	X							X	N/A			

TAT REQUESTED
Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard ☐ (10 Business Days)
*Date Needed 1 week

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) JNewcomb@crederellc.com
☐ HARD COPY REQUIRED ☒ EDD

RECEIVED ON ICE ☒ YES ☐ NO
TEMPERATURE 2 °C

CUSTODY RECORD
QSD-01 Revision 3/12/18

	Date	Time		Date	Time
Relinquished by Sampler:	4.16.18	1315	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by laboratory:	4/17/18	1315

Laboratory Report

Absolute Resource associates
124 Heritage Avenue Portsmouth NH 03801

Judd Newcomb
CREDERE Associates
776 Main Street
Westbrook, ME 04092

PO Number: None
Job ID: 43997
Date Received: 4/13/18

Project: Kennebunk Service Plaza Southbound 18001445

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

Jennifer Lowe (for)

Sue Sylvester
Principal, General Manager

Date of Approval: 4/26/2018
Total number of pages: 48

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Kennebunk Service Plaza Southbound 18001445

Lab ID: 43997

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
SB-S1 (10-12)	Solid	4/12/2018 9:35	43997-001	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S1	Water	4/12/2018 10:30	43997-002	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
SB-S2 (10-12)	Solid	4/12/2018 11:15	43997-003	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S4 (10-12)	Solid	4/12/2018 11:35	43997-004	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S3 (10-12)	Solid	4/12/2018 12:15	43997-005	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S5 (10-11)	Solid	4/12/2018 12:55	43997-006	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S6 (10-11)	Solid	4/12/2018 13:25	43997-007	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S7 (9-10)	Solid	4/12/2018 13:45	43997-008	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S5	Water	4/12/2018 14:25	43997-009	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
SB-S10 (10-12)	Solid	4/12/2018 15:05	43997-010	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S11 (10-12)	Solid	4/12/2018 15:30	43997-011	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S12 (10-12)	Solid	4/12/2018 15:40	43997-012	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S9 (10-12)	Solid	4/12/2018 16:05	43997-013	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G
				VPH in solids by MA DEP Method
SB-S8 (10-12)	Solid	4/12/2018 16:20	43997-014	
				EPH in solids by MADEP Method
				Percent Dry Matter for Sample Calc by SM2540B,G

Project ID: Kennebunk Service Plaza Southbound 18001445

Lab ID: 43997

Sample Association Table

Field ID	Matrix	Date-Time Sampled	Lab#	Analysis
SB-S8 (10-12)	Solid	4/12/2018 16:20	43997-014	
				VPH in solids by MA DEP Method
SB-S9	Water	4/12/2018 16:50	43997-015	
				EPH in water by MADEP Method
				VPH in water by MA DEP Method
Trip Blank	Water	4/12/2018 0:00	43997-016	
				VPH in water by MA DEP Method
Trip Blank	Solid	4/12/2018 0:00	43997-017	
				VPH in solids by MA DEP Method

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-001
Sample ID: SB-S1 (10-12)
Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.57 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 9:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**14**	4	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
Unadjusted C9-C12 Aliphatics	**10**	4	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
toluene	**0.8**	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
ethylbenzene	**0.3**	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
m&p-xylenes	**1.2**	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
o-xylene	**0.3**	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
C5-C8 Aliphatics	**13**	4	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
C9-C10 Aromatics	**6**	4	ug/g	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**106**	70-130	%	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**94**	70-130	%	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH
a,a,a-trifluorotoluene SUR	**88**	70-130	%	1	LMM	4/18/18	10590	4/19/18	19:24	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-002

Sample ID: SB-S1

Matrix: Water

Received on ice at 6˚C, in satisfactory condition.

Sampled: 4/12/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**6200**	1000	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
Unadjusted C9-C12 Aliphatics	**6400**	1000	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
methyl t-butyl ether (MTBE)	< 20	20	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
benzene	< 10	10	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
toluene	**1300**	20	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
ethylbenzene	**620**	20	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
m&p-xylenes	**1900**	20	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
o-xylene	**570**	20	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
naphthalene	**140**	50	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
C5-C8 Aliphatics	**4900**	1000	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
C9-C12 Aliphatics	< 1000	1000	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
C9-C10 Aromatics	**2900**	1000	ug/L	10	LMM		1800909	4/21/18	17:42	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**115**	70-130	%	10	LMM		1800909	4/21/18	17:42	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**94**	70-130	%	10	LMM		1800909	4/21/18	17:42	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-003
Sample ID: SB-S2 (10-12)
Matrix: Solid Percent Dry: 85.8% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.62 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 11:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**550**	44	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
Unadjusted C9-C12 Aliphatics	**330**	44	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
methyl t-butyl ether (MTBE)	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
benzene	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
toluene	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
ethylbenzene	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
m&p-xylenes	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
o-xylene	< 0.9	0.9	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
naphthalene	< 2.2	2.2	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
C5-C8 Aliphatics	**550**	44	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
C9-C12 Aliphatics	**99**	44	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
C9-C10 Aromatics	**230**	44	ug/g	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**109**	70-130	%	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**90**	70-130	%	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH
a,a,a-trifluorotoluene SUR	**219** *	70-130	%	10	LMM	4/18/18	10590	4/21/18	4:36	MA VPH

**** The surrogate showed recovery outside the acceptance limits as a result of hydrocarbons present in the sample.***

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.

C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.

C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-004
Sample ID: SB-S4 (10-12)
Matrix: Solid Percent Dry: 84.6% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.56 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 11:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
Unadjusted C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
C9-C10 Aromatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**83**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**75**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH
a,a,a-trifluorotoluene SUR	**90**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:22	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-005
Sample ID: SB-S3 (10-12)
Matrix: Solid Percent Dry: 81.2% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.6 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
Unadjusted C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
C9-C10 Aromatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**91**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**82**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH
a,a,a-trifluorotoluene SUR	**91**	70-130	%	1	LMM	4/18/18	10590	4/19/18	20:51	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-006
Sample ID: SB-S5 (10-11)
Matrix: Solid Percent Dry: 83.3% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.62 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**1900**	230	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
Unadjusted C9-C12 Aliphatics	**1100**	230	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
methyl t-butyl ether (MTBE)	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
benzene	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
toluene	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
ethylbenzene	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
m&p-xylenes	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
o-xylene	< 4.7	4.7	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
naphthalene	< 12	12	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
C5-C8 Aliphatics	**1900**	230	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
C9-C12 Aliphatics	**340**	230	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
C9-C10 Aromatics	**710**	230	ug/g	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**119**	70-130	%	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**98**	70-130	%	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH
a,a,a-trifluorotoluene SUR	**DOR**	70-130	%	50	LMM	4/18/18	10590	4/21/18	7:32	MA VPH

DOR = Diluted out of range.

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-007
Sample ID: SB-S6 (10-11)
Matrix: Solid Percent Dry: 85.8% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.57 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 13:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
Unadjusted C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
C9-C10 Aromatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**90**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**81**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH
a,a,a-trifluorotoluene SUR	**86**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:20	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-008
Sample ID: SB-S7 (9-10)
Matrix: Solid Percent Dry: 97.6% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.71 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
Unadjusted C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
C9-C10 Aromatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**95**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**86**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH
a,a,a-trifluorotoluene SUR	**84**	70-130	%	1	LMM	4/18/18	10590	4/19/18	21:50	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-009
Sample ID: SB-S5
Matrix: Water
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 14:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**5300**	500	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
Unadjusted C9-C12 Aliphatics	**2200**	500	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
methyl t-butyl ether (MTBE)	< 10	10	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
benzene	< 5	5	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
toluene	< 10	10	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
ethylbenzene	< 10	10	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
m&p-xylenes	< 10	10	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
o-xylene	< 10	10	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
naphthalene	< 25	25	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
C5-C8 Aliphatics	**5300**	500	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
C9-C12 Aliphatics	< 500	500	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
C9-C10 Aromatics	**2000**	500	ug/L	5	LMM		1800909	4/21/18	16:42	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**129**	70-130	%	5	LMM		1800909	4/21/18	16:42	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**106**	70-130	%	5	LMM		1800909	4/21/18	16:42	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-010
Sample ID: SB-S10 (10-12)
Matrix: Solid Percent Dry: 83.3% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.58 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 15:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
Unadjusted C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
C5-C8 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
C9-C12 Aliphatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
C9-C10 Aromatics	< 4	4	ug/g	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**100**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**95**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH
a,a,a-trifluorotoluene SUR	**86**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:19	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-011
Sample ID: SB-S11 (10-12)
Matrix: Solid Percent Dry: 83.5% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.6 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 15:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
Unadjusted C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
C9-C10 Aromatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**98**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**89**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH
a,a,a-trifluorotoluene SUR	**77**	70-130	%	1	LMM	4/18/18	10590	4/19/18	22:48	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-012
Sample ID: SB-S12 (10-12)
Matrix: Solid Percent Dry: 80.4% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.57 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 15:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
Unadjusted C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
C9-C10 Aromatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**95**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**84**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH
a,a,a-trifluorotoluene SUR	**98**	70-130	%	1	LMM	4/18/18	10590	4/20/18	8:03	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-013
Sample ID: SB-S9 (10-12)
Matrix: Solid Percent Dry: 87.4% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.53 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 16:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**460**	19	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
Unadjusted C9-C12 Aliphatics	**570**	19	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
methyl t-butyl ether (MTBE)	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
benzene	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
toluene	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
ethylbenzene	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
m&p-xylenes	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
o-xylene	< 0.4	0.4	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
naphthalene	< 0.9	0.9	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
C5-C8 Aliphatics	**460**	19	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
C9-C12 Aliphatics	**270**	19	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
C9-C10 Aromatics	**300**	19	ug/g	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**121**	70-130	%	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**106**	70-130	%	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH
a,a,a-trifluorotoluene SUR	**128**	70-130	%	5	LMM	4/18/18	10590	4/21/18	3:38	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-014
Sample ID: SB-S8 (10-12)
Matrix: Solid Percent Dry: 83.6% Results expressed on a dry weight basis.
Samples prepared in methanol at a ratio of 0.57 mL MeOH/g soil.
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 16:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**170**	9	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
Unadjusted C9-C12 Aliphatics	**97**	9	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
methyl t-butyl ether (MTBE)	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
benzene	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
toluene	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
ethylbenzene	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
m&p-xylenes	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
o-xylene	< 0.2	0.2	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
naphthalene	< 0.4	0.4	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
C5-C8 Aliphatics	**170**	9	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
C9-C12 Aliphatics	**58**	9	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
C9-C10 Aromatics	**39**	9	ug/g	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**114**	70-130	%	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**95**	70-130	%	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH
a,a,a-trifluorotoluene SUR	**107**	70-130	%	2	LMM	4/18/18	10590	4/21/18	0:43	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-015
Sample ID: SB-S9
Matrix: Water
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 16:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	**2000**	500	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
Unadjusted C9-C12 Aliphatics	**1900**	500	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
methyl t-butyl ether (MTBE)	< 10	10	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
benzene	< 5	5	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
toluene	< 10	10	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
ethylbenzene	< 10	10	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
m&p-xylenes	< 10	10	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
o-xylene	< 10	10	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
naphthalene	< 25	25	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
C5-C8 Aliphatics	**2000**	500	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
C9-C12 Aliphatics	< 500	500	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
C9-C10 Aromatics	**1900**	500	ug/L	5	LMM		1800909	4/21/18	14:43	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**110**	70-130	%	5	LMM		1800909	4/21/18	14:43	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**89**	70-130	%	5	LMM		1800909	4/21/18	14:43	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-016
Sample ID: Trip Blank
Matrix: Water
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 0:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 100	100	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
Unadjusted C9-C12 Aliphatics	< 100	100	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
methyl t-butyl ether (MTBE)	< 2	2	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
benzene	< 1	1	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
toluene	< 2	2	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
ethylbenzene	< 2	2	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
m&p-xylenes	< 2	2	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
o-xylene	< 2	2	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
naphthalene	< 5	5	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
C5-C8 Aliphatics	< 100	100	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
C9-C12 Aliphatics	< 100	100	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
C9-C10 Aromatics	< 100	100	ug/L	1	LMM		1800880	4/19/18	12:48	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**99**	70-130	%	1	LMM		1800880	4/19/18	12:48	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**89**	70-130	%	1	LMM		1800880	4/19/18	12:48	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-017
Sample ID: Trip Blank
Matrix: Solid
Samples prepared in methanol within a 1:1 ratio +/- 25% mL MeOH/g soil
Received on ice at 6˚C, in satisfactory condition.
Sampled: 4/12/18 0:00

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
Unadjusted C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
Unadjusted C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
methyl t-butyl ether (MTBE)	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
benzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
toluene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
ethylbenzene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
m&p-xylenes	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
o-xylene	< 0.1	0.1	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
naphthalene	< 0.2	0.2	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
C5-C8 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
C9-C12 Aliphatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
C9-C10 Aromatics	< 5	5	ug/g	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
Surrogate Recovery		**Limits**								
2,5-dibromotoluene as Aromatic SUR	**94**	70-130	%	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
2,5-dibromotoluene as Aliphatic SUR	**84**	70-130	%	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH
a,a,a-trifluorotoluene SUR	**87**	70-130	%	1	LMM	4/18/18	10590	4/20/18	4:38	MA VPH

Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
C5-C8 Aliphatic Hydrocarbons exclude the concentration of target analytes eluting in that range.
C9-C12 Aliphatic Hydrocarbons exclude concentration of target analytes eluting in that range AND C9-C10 Aromatics.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-001
Sample ID: SB-S1 (10-12)
Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.
Sampled: 4/12/18 9:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
2-methylnaphthalene	**0.3**	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:09	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	13:44	MA EPH
C9-C18 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	1:04	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	1:04	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	13:44	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**51**	40-140	%	1	AAG	4/17/18	10585	4/24/18	1:04	MA EPH
o-terphenyl SUR	**63**	40-140	%	1	AAG	4/17/18	10585	4/22/18	13:44	MA EPH
2-fluorobiphenyl SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/22/18	13:44	MA EPH
2-bromonaphthalene SUR	**71**	40-140	%	1	AAG	4/17/18	10585	4/22/18	13:44	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997
Sample#: 43997-002
Sample ID: SB-S1
Matrix: Water
Sampled: 4/12/18 10:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**61**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
2-methylnaphthalene	**22**	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/23/18	14:00	MA EPH
Unadjusted C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	13:45	MA EPH
C9-C18 Aliphatics	< 100 J	100	ug/L	1	AAG	4/18/18	10588	4/21/18	2:45	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	2:45	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/23/18	13:45	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**54**	40-140	%	1	AAG	4/18/18	10588	4/21/18	2:45	MA EPH
o-terphenyl SUR	**59**	40-140	%	1	AAG	4/18/18	10588	4/23/18	13:45	MA EPH
2-fluorobiphenyl SUR	**68**	40-140	%	1	AAG	4/18/18	10588	4/23/18	13:45	MA EPH
2-bromonaphthalene SUR	**69**	40-140	%	1	AAG	4/18/18	10588	4/23/18	13:45	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-003
Sample ID: SB-S2 (10-12)
Matrix: Solid Percent Dry: 85.8% Results expressed on a dry weight basis.
Sampled: 4/12/18 11:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	21:39	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/22/18	14:12	MA EPH
C9-C18 Aliphatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/24/18	1:32	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/24/18	1:32	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/22/18	14:12	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**53**	40-140	%	1	AAG	4/17/18	10585	4/24/18	1:32	MA EPH
o-terphenyl SUR	**63**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:12	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:12	MA EPH
2-bromonaphthalene SUR	**73**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:12	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-004

Sample ID: SB-S4 (10-12)

Matrix: Solid Percent Dry: 84.6% Results expressed on a dry weight basis.

Sampled: 4/12/18 11:35

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:08	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	14:41	MA EPH
C9-C18 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:01	MA EPH
C19-C36 Aliphatics	**26**	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:01	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	14:41	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**60**	40-140	%	1	AAG	4/17/18	10585	4/24/18	2:01	MA EPH
o-terphenyl SUR	**66**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:41	MA EPH
2-fluorobiphenyl SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:41	MA EPH
2-bromonaphthalene SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/22/18	14:41	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-005

Sample ID: SB-S3 (10-12)

Matrix: Solid Percent Dry: 81.2% Results expressed on a dry weight basis.

Sampled: 4/12/18 12:15

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	22:38	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	15:09	MA EPH
C9-C18 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:29	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:29	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	15:09	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/17/18	10585	4/24/18	2:29	MA EPH
o-terphenyl SUR	**63**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:09	MA EPH
2-fluorobiphenyl SUR	**69**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:09	MA EPH
2-bromonaphthalene SUR	**70**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:09	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-006

Sample ID: SB-S5 (10-11)

Matrix: Solid Percent Dry: 83.3% Results expressed on a dry weight basis.

Sampled: 4/12/18 12:55

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
2-methylnaphthalene	**0.3**	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:07	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	15:37	MA EPH
C9-C18 Aliphatics	**70**	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:57	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	2:57	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	15:37	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**54**	40-140	%	1	AAG	4/17/18	10585	4/24/18	2:57	MA EPH
o-terphenyl SUR	**64**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:37	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:37	MA EPH
2-bromonaphthalene SUR	**77**	40-140	%	1	AAG	4/17/18	10585	4/22/18	15:37	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-007

Sample ID: SB-S6 (10-11)

Matrix: Solid Percent Dry: 85.8% Results expressed on a dry weight basis.

Sampled: 4/12/18 13:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/22/18	23:37	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/22/18	16:05	MA EPH
C9-C18 Aliphatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/24/18	3:25	MA EPH
C19-C36 Aliphatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/24/18	3:25	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/22/18	16:05	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**51**	40-140	%	1	AAG	4/17/18	10585	4/24/18	3:25	MA EPH
o-terphenyl SUR	**67**	40-140	%	1	AAG	4/17/18	10585	4/22/18	16:05	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	16:05	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	16:05	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-008
Sample ID: SB-S7 (9-10)
Matrix: Solid Percent Dry: 97.6% Results expressed on a dry weight basis.
Sampled: 4/12/18 13:45

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:06	MA EPH
Unadjusted C11-C22 Aromatics	< 20	20	ug/g	1	AAG	4/17/18	10585	4/22/18	19:26	MA EPH
C9-C18 Aliphatics	< 20	20	ug/g	1	AAG	4/17/18	10585	4/24/18	3:53	MA EPH
C19-C36 Aliphatics	< 20	20	ug/g	1	AAG	4/17/18	10585	4/24/18	3:53	MA EPH
C11-C22 Aromatics	< 20	20	ug/g	1	AAG	4/17/18	10585	4/22/18	19:26	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**61**	40-140	%	1	AAG	4/17/18	10585	4/24/18	3:53	MA EPH
o-terphenyl SUR	**73**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:26	MA EPH
2-fluorobiphenyl SUR	**78**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:26	MA EPH
2-bromonaphthalene SUR	**78**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:26	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997
Sample#: 43997-009
Sample ID: SB-S5
Matrix: Water
Sampled: 4/12/18 14:25

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
2-methylnaphthalene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:12	MA EPH
Unadjusted C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	11:26	MA EPH
C9-C18 Aliphatics	< 100 J	100	ug/L	1	AAG	4/18/18	10588	4/21/18	4:10	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	4:10	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	11:26	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**28**	40-140	%	1	AAG	4/18/18	10588	4/21/18	4:10	MA EPH
o-terphenyl SUR	**29**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:26	MA EPH
2-fluorobiphenyl SUR	**61**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:26	MA EPH
2-bromonaphthalene SUR	**66**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:26	MA EPH

J = Result is an estimate. See case narrative.

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-010
Sample ID: SB-S10 (10-12)
Matrix: Solid Percent Dry: 83.3% Results expressed on a dry weight basis.
Sampled: 4/12/18 15:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	0:36	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	19:54	MA EPH
C9-C18 Aliphatics	**36**	23	ug/g	1	AAG	4/17/18	10585	4/24/18	4:22	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	4:22	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	19:54	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**49**	40-140	%	1	AAG	4/17/18	10585	4/24/18	4:22	MA EPH
o-terphenyl SUR	**66**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:54	MA EPH
2-fluorobiphenyl SUR	**78**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:54	MA EPH
2-bromonaphthalene SUR	**78**	40-140	%	1	AAG	4/17/18	10585	4/22/18	19:54	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-011
Sample ID: SB-S11 (10-12)
Matrix: Solid Percent Dry: 83.5% Results expressed on a dry weight basis.
Sampled: 4/12/18 15:30

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:05	MA EPH
Unadjusted C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/22/18	20:23	MA EPH
C9-C18 Aliphatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/24/18	7:39	MA EPH
C19-C36 Aliphatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/24/18	7:39	MA EPH
C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/22/18	20:23	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**53**	40-140	%	1	AAG	4/17/18	10585	4/24/18	7:39	MA EPH
o-terphenyl SUR	**69**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:23	MA EPH
2-fluorobiphenyl SUR	**76**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:23	MA EPH
2-bromonaphthalene SUR	**78**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:23	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-012
Sample ID: SB-S12 (10-12)
Matrix: Solid Percent Dry: 80.4% Results expressed on a dry weight basis.
Sampled: 4/12/18 15:40

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	1:35	MA EPH
Unadjusted C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	20:51	MA EPH
C9-C18 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	8:07	MA EPH
C19-C36 Aliphatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/24/18	8:07	MA EPH
C11-C22 Aromatics	< 23	23	ug/g	1	AAG	4/17/18	10585	4/22/18	20:51	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/17/18	10585	4/24/18	8:07	MA EPH
o-terphenyl SUR	**69**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:51	MA EPH
2-fluorobiphenyl SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:51	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/22/18	20:51	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445

Job ID: 43997

Sample#: 43997-013

Sample ID: SB-S9 (10-12)

Matrix: Solid Percent Dry: 87.4% Results expressed on a dry weight basis.

Sampled: 4/12/18 16:05

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**0.6**	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
2-methylnaphthalene	**2.4**	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	7:00	MA EPH
Unadjusted C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/23/18	15:38	MA EPH
C9-C18 Aliphatics	**51**	22	ug/g	1	AAG	4/17/18	10585	4/24/18	8:36	MA EPH
C19-C36 Aliphatics	**38**	22	ug/g	1	AAG	4/17/18	10585	4/24/18	8:36	MA EPH
C11-C22 Aromatics	< 22	22	ug/g	1	AAG	4/17/18	10585	4/23/18	15:38	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**55**	40-140	%	1	AAG	4/17/18	10585	4/24/18	8:36	MA EPH
o-terphenyl SUR	**66**	40-140	%	1	AAG	4/17/18	10585	4/23/18	15:38	MA EPH
2-fluorobiphenyl SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/23/18	15:38	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AAG	4/17/18	10585	4/23/18	15:38	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997

Sample#: 43997-014
Sample ID: SB-S8 (10-12)
Matrix: Solid Percent Dry: 83.6% Results expressed on a dry weight basis.
Sampled: 4/12/18 16:20

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
2-methylnaphthalene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
phenanthrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
acenaphthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
acenaphthylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
fluorene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
benzo(a)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
chrysene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
benzo(b)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
benzo(k)fluoranthene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
benzo(a)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
indeno(1,2,3-cd)pyrene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
dibenzo(a,h)anthracene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
benzo(g,h,i)perylene	< 0.2	0.2	ug/g	1	CL	4/17/18	10585	4/23/18	2:04	MA EPH
Unadjusted C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/23/18	14:14	MA EPH
C9-C18 Aliphatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/24/18	9:04	MA EPH
C19-C36 Aliphatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/24/18	9:04	MA EPH
C11-C22 Aromatics	< 24	24	ug/g	1	AAG	4/17/18	10585	4/23/18	14:14	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**51**	40-140	%	1	AAG	4/17/18	10585	4/24/18	9:04	MA EPH
o-terphenyl SUR	**64**	40-140	%	1	AAG	4/17/18	10585	4/23/18	14:14	MA EPH
2-fluorobiphenyl SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/23/18	14:14	MA EPH
2-bromonaphthalene SUR	**72**	40-140	%	1	AAG	4/17/18	10585	4/23/18	14:14	MA EPH

Project ID: Kennebunk Service Plaza Southbound 18001445
Job ID: 43997
Sample#: 43997-015
Sample ID: SB-S9
Matrix: Water
Sampled: 4/12/18 16:50

Parameter	Result	Reporting Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Time	Reference
naphthalene	**4.7**	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
2-methylnaphthalene	**16**	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
phenanthrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
acenaphthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
acenaphthylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
fluorene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
benzo(a)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
chrysene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
benzo(b)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
benzo(k)fluoranthene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
benzo(a)pyrene	< 0.4	0.4	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
indeno(1,2,3-cd)pyrene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
dibenzo(a,h)anthracene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
benzo(g,h,i)perylene	< 1.0	1.0	ug/L	1	CL	4/18/18	10588	4/22/18	17:42	MA EPH
Unadjusted C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	11:54	MA EPH
C9-C18 Aliphatics	**140** J	100	ug/L	1	AAG	4/18/18	10588	4/21/18	4:38	MA EPH
C19-C36 Aliphatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	4:38	MA EPH
C11-C22 Aromatics	< 100	100	ug/L	1	AAG	4/18/18	10588	4/21/18	11:54	MA EPH
Surrogate Recovery		**Limits**								
1-chloro-octadecane SUR	**60**	40-140	%	1	AAG	4/18/18	10588	4/21/18	4:38	MA EPH
o-terphenyl SUR	**66**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:54	MA EPH
2-fluorobiphenyl SUR	**69**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:54	MA EPH
2-bromonaphthalene SUR	**74**	40-140	%	1	AAG	4/18/18	10588	4/21/18	11:54	MA EPH

J = Result is an estimate. See case narrative.

Quality Control Report

124 Heritage Avenue Unit 16
Portsmouth, NH 03801
www.absoluteresourceassociates.com

Case Narrative
Lab # 43997

Sample Receiving and Chain of Custody Discrepancies

Samples were received in acceptable condition, at 6 degrees C, on ice, and in accordance with sample handling, preservation and integrity guidelines.

Calibration

No exceptions noted.

Method Blank

No exceptions noted.

Surrogate Recoveries

VPH: Sample 43997-003 did not meet acceptance criteria due to co-eluting hydrocarbons. The sample chromatogram is included in the report.
VPH: The surrogate a,a,a-trifluorotoluene in sample 43997-006 was unable to be evaluated due to the dilution that was necessary for the analysis. The surrogates were diluted out of the range of the analysis as noted on the report pages.

Laboratory Control Sample Results

EPH: The LCS10585 did not meet the acceptance criteria for naphthalene. The relative percent difference between the LCS and LCSD10585 was outside the acceptance criteria for naphthalene. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required. The relative percent difference between the LCS and LCSD10585 was outside the acceptance criteria for 2-methylnaphthalene, acenaphthene, and acenaphthylene. The percent recovery for these analytes in each QC parameter was within the acceptance criteria. No impact to the data suspected.
EPH: The LCS10588 did not meet the acceptance criteria for naphthalene. Since <10% of the compounds were outside of the acceptance criteria, reanalysis is not required.
EPH: Three of the components (C9, C10, and C12) that make up the range, C9-C18 Aliphatics, for the LCS/D10588 were below the acceptance criteria. The overall range concentration is acceptable. The results have been qualified accordingly.

Matrix Spike/Matrix Spike Duplicate/Duplicate Results

Not requested for this project.

Other

Reporting Limits: Dilutions performed during the analysis are noted on the result pages.

No other exceptions noted.

GLOSSARY

%R	Percent Recovery
BLK	Blank (Method Blank, Preparation Blank)
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
Dil'n	Dilution
DL	Detection Limit
DUP	Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection
LOQ	Limit of Quantitation
MB	Methanol Blank (associated with solid VOC samples)
MLCS	Methanol Laboratory Control Sample (associated with solid VOC samples)
MLCSD	Methanol Laboratory Control Sample Duplicate (associated with solid VOC samples)
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PB	Preparation Blank
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SUR	Surrogate

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	MB10590	Unadjusted C5-C8 Aliphatics		<	5	ug/g						
		Unadjusted C9-C12 Aliphatics		<	5	ug/g						
		methyl t-butyl ether (MTBE)		<	0.1	ug/g						
		benzene		<	0.1	ug/g						
		toluene		<	0.1	ug/g						
		ethylbenzene		<	0.1	ug/g						
		m&p-xylenes		<	0.1	ug/g						
		o-xylene		<	0.1	ug/g						
		naphthalene		<	0.2	ug/g						
		C5-C8 Aliphatics		<	5	ug/g						
		C9-C12 Aliphatics		<	5	ug/g						
		C9-C10 Aromatics		<	5	ug/g						
		2,5-dibromotoluene as Aromatic SUR			101	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			92	%			70	130		
		a,a,a-trifluorotoluene SUR			85	%			70	130		
MA VPH	MLCS10590	Unadjusted C5-C8 Aliphatics			29.8	ug/g	30	99	70	130		
		Unadjusted C9-C12 Aliphatics			39.1	ug/g	40	98	70	130		
		methyl t-butyl ether (MTBE)			4.6	ug/g	5	93	70	130		
		benzene			4.7	ug/g	5	94	70	130		
		toluene			4.5	ug/g	5	91	70	130		
		ethylbenzene			4.4	ug/g	5	88	70	130		
		m&p-xylenes			8.9	ug/g	10	89	70	130		
		o-xylene			4.3	ug/g	5	86	70	130		
		naphthalene			3.8	ug/g	5	76	70	130		
		C5-C8 Aliphatics			13	ug/g	15	85	70	130		
		C9-C12 Aliphatics			11	ug/g	15	73	70	130		
		C9-C10 Aromatics		<	5.0	ug/g	5	94	70	130		
		2,5-dibromotoluene as Aromatic SUR			109	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			98	%			70	130		
		a,a,a-trifluorotoluene SUR			82	%			70	130		
MA VPH	MLCSD10590	Unadjusted C5-C8 Aliphatics			29.8	ug/g	30	99	70	130	0	25
		Unadjusted C9-C12 Aliphatics			39.9	ug/g	40	100	70	130	2	25
		methyl t-butyl ether (MTBE)			4.5	ug/g	5	90	70	130	3	25
		benzene			4.6	ug/g	5	92	70	130	1	25
		toluene			4.5	ug/g	5	89	70	130	2	25
		ethylbenzene			4.4	ug/g	5	88	70	130	0	25
		m&p-xylenes			8.9	ug/g	10	89	70	130	0	25
		o-xylene			4.3	ug/g	5	87	70	130	0	25
		naphthalene			3.8	ug/g	5	75	70	130	1	25
		C5-C8 Aliphatics			13	ug/g	15	86	70	130	1	25
		C9-C12 Aliphatics			12	ug/g	15	78	70	130	6	25
		C9-C10 Aromatics		<	5.0	ug/g	5	93	70	130	0	25
		2,5-dibromotoluene as Aromatic SUR			110	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			98	%			70	130		
		a,a,a-trifluorotoluene SUR			78	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	BLK1800880	Unadjusted C5-C8 Aliphatics		<	100	ug/L						
		Unadjusted C9-C12 Aliphatics		<	100	ug/L						
		methyl t-butyl ether (MTBE)		<	2	ug/L						
		benzene		<	1	ug/L						
		toluene		<	2	ug/L						
		ethylbenzene		<	2	ug/L						
		m&p-xylenes		<	2	ug/L						
		o-xylene		<	2	ug/L						
		naphthalene		<	5	ug/L						
		C5-C8 Aliphatics		<	100	ug/L						
		C9-C12 Aliphatics		<	100	ug/L						
		C9-C10 Aromatics		<	100	ug/L						
		2,5-dibromotoluene as Aromatic SUR			93	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			84	%			70	130		
MA VPH	LCS1800880	Unadjusted C5-C8 Aliphatics			630	ug/L	600	104	70	130		
		Unadjusted C9-C12 Aliphatics			850	ug/L	800	106	70	130		
		methyl t-butyl ether (MTBE)			96	ug/L	100	96	70	130		
		benzene			95	ug/L	100	95	70	130		
		toluene			94	ug/L	100	94	70	130		
		ethylbenzene			94	ug/L	100	94	70	130		
		m&p-xylenes			190	ug/L	200	96	70	130		
		o-xylene			94	ug/L	100	94	70	130		
		naphthalene			79	ug/L	100	79	70	130		
		C5-C8 Aliphatics			280	ug/L	300	94	70	130		
		C9-C12 Aliphatics			250	ug/L	300	82	70	130		
		C9-C10 Aromatics			98	ug/L	100	98	70	130		
		2,5-dibromotoluene as Aromatic SUR			93	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			83	%			70	130		
MA VPH	LCSD1800880	Unadjusted C5-C8 Aliphatics			600	ug/L	600	99	70	130	5	25
		Unadjusted C9-C12 Aliphatics			840	ug/L	800	105	70	130	2	25
		methyl t-butyl ether (MTBE)			95	ug/L	100	95	70	130	0	25
		benzene			93	ug/L	100	93	70	130	1	25
		toluene			92	ug/L	100	92	70	130	1	25
		ethylbenzene			93	ug/L	100	93	70	130	1	25
		m&p-xylenes			190	ug/L	200	95	70	130	1	25
		o-xylene			93	ug/L	100	93	70	130	1	25
		naphthalene			80	ug/L	100	80	70	130	1	25
		C5-C8 Aliphatics			250	ug/L	300	85	70	130	10	25
		C9-C12 Aliphatics			240	ug/L	300	81	70	130	2	25
		C9-C10 Aromatics			97	ug/L	100	97	70	130	1	25
		2,5-dibromotoluene as Aromatic SUR			118	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			105	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA VPH	BLK1800909	Unadjusted C5-C8 Aliphatics		<	100	ug/L						
		Unadjusted C9-C12 Aliphatics		<	100	ug/L						
		methyl t-butyl ether (MTBE)		<	2	ug/L						
		benzene		<	1	ug/L						
		toluene		<	2	ug/L						
		ethylbenzene		<	2	ug/L						
		m&p-xylenes		<	2	ug/L						
		o-xylene		<	2	ug/L						
		naphthalene		<	5	ug/L						
		C5-C8 Aliphatics		<	100	ug/L						
		C9-C12 Aliphatics		<	100	ug/L						
		C9-C10 Aromatics		<	100	ug/L						
		2,5-dibromotoluene as Aromatic SUR			102	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			82	%			70	130		
MA VPH	LCS1800909	Unadjusted C5-C8 Aliphatics			640	ug/L	600	107	70	130		
		Unadjusted C9-C12 Aliphatics			860	ug/L	800	108	70	130		
		methyl t-butyl ether (MTBE)			110	ug/L	100	106	70	130		
		benzene			110	ug/L	100	109	70	130		
		toluene			110	ug/L	100	108	70	130		
		ethylbenzene			110	ug/L	100	108	70	130		
		m&p-xylenes			220	ug/L	200	110	70	130		
		o-xylene			110	ug/L	100	108	70	130		
		naphthalene			77	ug/L	100	77	70	130		
		C5-C8 Aliphatics			280	ug/L	300	93	70	130		
		C9-C12 Aliphatics			230	ug/L	300	75	70	130		
		C9-C10 Aromatics			110	ug/L	100	111	70	130		
		2,5-dibromotoluene as Aromatic SUR			76	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			62	%			70	130		
MA VPH	LCSD1800909	Unadjusted C5-C8 Aliphatics			680	ug/L	600	113	70	130	5	25
		Unadjusted C9-C12 Aliphatics			910	ug/L	800	114	70	130	5	25
		methyl t-butyl ether (MTBE)			110	ug/L	100	111	70	130	5	25
		benzene			120	ug/L	100	115	70	130	5	25
		toluene			110	ug/L	100	114	70	130	6	25
		ethylbenzene			110	ug/L	100	115	70	130	6	25
		m&p-xylenes			230	ug/L	200	117	70	130	6	25
		o-xylene			110	ug/L	100	114	70	130	5	25
		naphthalene			82	ug/L	100	82	70	130	6	25
		C5-C8 Aliphatics			290	ug/L	300	98	70	130	5	25
		C9-C12 Aliphatics			240	ug/L	300	79	70	130	6	25
		C9-C10 Aromatics			120	ug/L	100	119	70	130	6	25
		2,5-dibromotoluene as Aromatic SUR			91	%			70	130		
		2,5-dibromotoluene as Aliphatic SUR			74	%			70	130		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
MA EPH	BLK10585	naphthalene		<	0.2	ug/g							
		2-methylnaphthalene		<	0.2	ug/g							
		phenanthrene		<	0.2	ug/g							
		acenaphthene		<	0.2	ug/g							
		acenaphthylene		<	0.2	ug/g							
		fluorene		<	0.2	ug/g							
		anthracene		<	0.2	ug/g							
		fluoranthene		<	0.2	ug/g							
		pyrene		<	0.2	ug/g							
		benzo(a)anthracene		<	0.2	ug/g							
		chrysene		<	0.2	ug/g							
		benzo(b)fluoranthene		<	0.2	ug/g							
		benzo(k)fluoranthene		<	0.2	ug/g							
		benzo(a)pyrene		<	0.2	ug/g							
		indeno(1,2,3-cd)pyrene		<	0.2	ug/g							
		dibenzo(a,h)anthracene		<	0.2	ug/g							
		benzo(g,h,i)perylene		<	0.2	ug/g							
		Unadjusted C11-C22 Aromatics		<	19	ug/g							
		C9-C18 Aliphatics		<	19	ug/g							
		C19-C36 Aliphatics		<	19	ug/g							
		C11-C22 Aromatics		<	19	ug/g							
		1-chloro-octadecane SUR			57	%				40	140		
		o-terphenyl SUR			62	%				40	140		
		2-fluorobiphenyl SUR			65	%				40	140		
		2-bromonaphthalene SUR			69	%				40	140		
MA EPH	LCS10585	naphthalene			2.2	ug/g	5.78	39	*	40	140		
		2-methylnaphthalene			2.5	ug/g	5.78	44		40	140		
		phenanthrene			3.2	ug/g	5.78	56		40	140		
		acenaphthene			2.7	ug/g	5.78	47		40	140		
		acenaphthylene			2.7	ug/g	5.78	47		40	140		
		fluorene			3.0	ug/g	5.78	53		40	140		
		anthracene			3.1	ug/g	5.78	54		40	140		
		fluoranthene			3.2	ug/g	5.78	55		40	140		
		pyrene			2.9	ug/g	5.78	49		40	140		
		benzo(a)anthracene			3.3	ug/g	5.78	57		40	140		
		chrysene			3.3	ug/g	5.78	58		40	140		
		benzo(b)fluoranthene			3.4	ug/g	5.78	59		40	140		
		benzo(k)fluoranthene			3.1	ug/g	5.78	54		40	140		
		benzo(a)pyrene			3.1	ug/g	5.78	54		40	140		
		indeno(1,2,3-cd)pyrene			3.1	ug/g	5.78	54		40	140		
		dibenzo(a,h)anthracene			3.2	ug/g	5.78	55		40	140		
		benzo(g,h,i)perylene			3.0	ug/g	5.78	52		40	140		
		Unadjusted C11-C22 Aromatics			60	ug/g	98	62		40	140		
		C9-C18 Aliphatics		<	19	ug/g	34	50		40	140		
		C19-C36 Aliphatics			41	ug/g	46	89		40	140		
		C11-C22 Aromatics		<	19	ug/g							
		1-chloro-octadecane SUR			57	%				40	140		
		o-terphenyl SUR			58	%				40	140		
		2-fluorobiphenyl SUR			69	%				40	140		
		2-bromonaphthalene SUR			72	%				40	140		

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD		RPD Limit
MA EPH	LCSD10585	naphthalene			3.0	ug/g	5.63	52	40	140	30	*	25
		2-methylnaphthalene			3.3	ug/g	5.63	58	40	140	28	*	25
		phenanthrene			3.8	ug/g	5.63	68	40	140	20		25
		acenaphthene			3.4	ug/g	5.63	61	40	140	26	*	25
		acenaphthylene			3.4	ug/g	5.63	61	40	140	26	*	25
		fluorene			3.8	ug/g	5.63	67	40	140	24		25
		anthracene			3.7	ug/g	5.63	66	40	140	22		25
		fluoranthene			3.8	ug/g	5.63	68	40	140	21		25
		pyrene			3.4	ug/g	5.63	61	40	140	21		25
		benzo(a)anthracene			4.0	ug/g	5.63	71	40	140	22		25
		chrysene			4.0	ug/g	5.63	70	40	140	20		25
		benzo(b)fluoranthene			4.0	ug/g	5.63	71	40	140	19		25
		benzo(k)fluoranthene			3.8	ug/g	5.63	67	40	140	21		25
		benzo(a)pyrene			3.7	ug/g	5.63	65	40	140	18		25
		indeno(1,2,3-cd)pyrene			3.7	ug/g	5.63	66	40	140	21		25
		dibenzo(a,h)anthracene			3.9	ug/g	5.63	69	40	140	21		25
		benzo(g,h,i)perylene			3.6	ug/g	5.63	64	40	140	21		25
		Unadjusted C11-C22 Aromatics			55	ug/g	95	57	40	140	7		25
		C9-C18 Aliphatics		<	19	ug/g	33	50	40	140	1		25
		C19-C36 Aliphatics			42	ug/g	45	93	40	140	4		25
		C11-C22 Aromatics		<	19	ug/g							
		1-chloro-octadecane SUR			58	%			40	140			
		o-terphenyl SUR			71	%			40	140			
		2-fluorobiphenyl SUR			73	%			40	140			
		2-bromonaphthalene SUR			74	%			40	140			

Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R		Limits		RPD	RPD Limit
MA EPH	BLK10588	naphthalene		<	1.0	ug/L							
		2-methylnaphthalene		<	1.0	ug/L							
		phenanthrene		<	1.0	ug/L							
		acenaphthene		<	1.0	ug/L							
		acenaphthylene		<	1.0	ug/L							
		fluorene		<	1.0	ug/L							
		anthracene		<	1.0	ug/L							
		fluoranthene		<	1.0	ug/L							
		pyrene		<	1.0	ug/L							
		benzo(a)anthracene		<	1.0	ug/L							
		chrysene		<	1.0	ug/L							
		benzo(b)fluoranthene		<	1.0	ug/L							
		benzo(k)fluoranthene		<	1.0	ug/L							
		benzo(a)pyrene		<	0.4	ug/L							
		indeno(1,2,3-cd)pyrene		<	1.0	ug/L							
		dibenzo(a,h)anthracene		<	1.0	ug/L							
		benzo(g,h,i)perylene		<	1.0	ug/L							
		Unadjusted C11-C22 Aromatics		<	100	ug/L							
		C9-C18 Aliphatics		<	100	ug/L							
		C19-C36 Aliphatics		<	100	ug/L							
		C11-C22 Aromatics		<	100	ug/L							
		1-chloro-octadecane SUR			52	%				40	140		
		o-terphenyl SUR			62	%				40	140		
		2-fluorobiphenyl SUR			72	%				40	140		
		2-bromonaphthalene SUR			72	%				40	140		
MA EPH	LCS10588	naphthalene			23	ug/L	60	39	*	40	140		
		2-methylnaphthalene			27	ug/L	60	45		40	140		
		phenanthrene			36	ug/L	60	60		40	140		
		acenaphthene			31	ug/L	60	51		40	140		
		acenaphthylene			30	ug/L	60	49		40	140		
		fluorene			34	ug/L	60	57		40	140		
		anthracene			34	ug/L	60	56		40	140		
		fluoranthene			38	ug/L	60	63		40	140		
		pyrene			31	ug/L	60	51		40	140		
		benzo(a)anthracene			37	ug/L	60	62		40	140		
		chrysene			38	ug/L	60	64		40	140		
		benzo(b)fluoranthene			37	ug/L	60	61		40	140		
		benzo(k)fluoranthene			38	ug/L	60	64		40	140		
		benzo(a)pyrene			37	ug/L	60	61		40	140		
		indeno(1,2,3-cd)pyrene			34	ug/L	60	56		40	140		
		dibenzo(a,h)anthracene			35	ug/L	60	59		40	140		
		benzo(g,h,i)perylene			32	ug/L	60	53		40	140		
		Unadjusted C11-C22 Aromatics			540	ug/L	1020	53		40	140		
		C9-C18 Aliphatics			150	ug/L	360	42		40	140		
		C19-C36 Aliphatics			380	ug/L	480	80		40	140		
		C11-C22 Aromatics		<	100	ug/L							
		1-chloro-octadecane SUR			59	%				40	140		
		o-terphenyl SUR			59	%				40	140		
		2-fluorobiphenyl SUR			71	%				40	140		
		2-bromonaphthalene SUR			73	%				40	140		

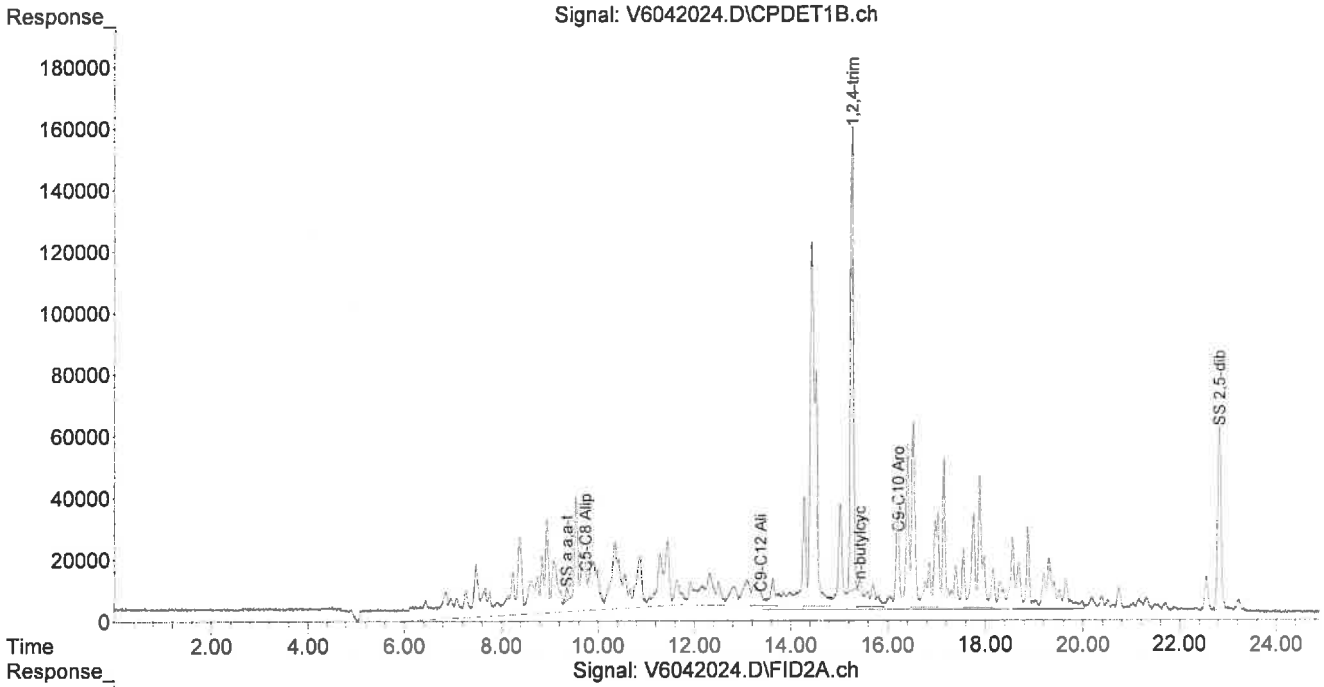
Method	QC ID	Parameter	Associated Sample		Result	Units	Amt Added	%R	Limits		RPD	RPD Limit
MA EPH	LCSD10588	naphthalene			29	ug/L	60	48	40	140	21	25
		2-methylnaphthalene			33	ug/L	60	55	40	140	19	25
		phenanthrene			42	ug/L	60	70	40	140	16	25
		acenaphthene			35	ug/L	60	58	40	140	13	25
		acenaphthylene			34	ug/L	60	56	40	140	13	25
		fluorene			40	ug/L	60	66	40	140	15	25
		anthracene			39	ug/L	60	66	40	140	15	25
		fluoranthene			46	ug/L	60	76	40	140	19	25
		pyrene			35	ug/L	60	59	40	140	14	25
		benzo(a)anthracene			43	ug/L	60	72	40	140	14	25
		chrysene			45	ug/L	60	75	40	140	16	25
		benzo(b)fluoranthene			42	ug/L	60	70	40	140	14	25
		benzo(k)fluoranthene			42	ug/L	60	71	40	140	10	25
		benzo(a)pyrene			42	ug/L	60	70	40	140	14	25
		indeno(1,2,3-cd)pyrene			42	ug/L	60	70	40	140	21	25
		dibenzo(a,h)anthracene			44	ug/L	60	74	40	140	23	25
		benzo(g,h,i)perylene			40	ug/L	60	67	40	140	23	25
		Unadjusted C11-C22 Aromatics			700	ug/L	1020	68	40	140	25	25
		C9-C18 Aliphatics			170	ug/L	360	48	40	140	13	25
		C19-C36 Aliphatics			400	ug/L	480	83	40	140	5	25
		C11-C22 Aromatics		<	100	ug/L						
		1-chloro-octadecane SUR			55	%			40	140		
		o-terphenyl SUR			68	%			40	140		
		2-fluorobiphenyl SUR			75	%			40	140		
		2-bromonaphthalene SUR			77	%			40	140		

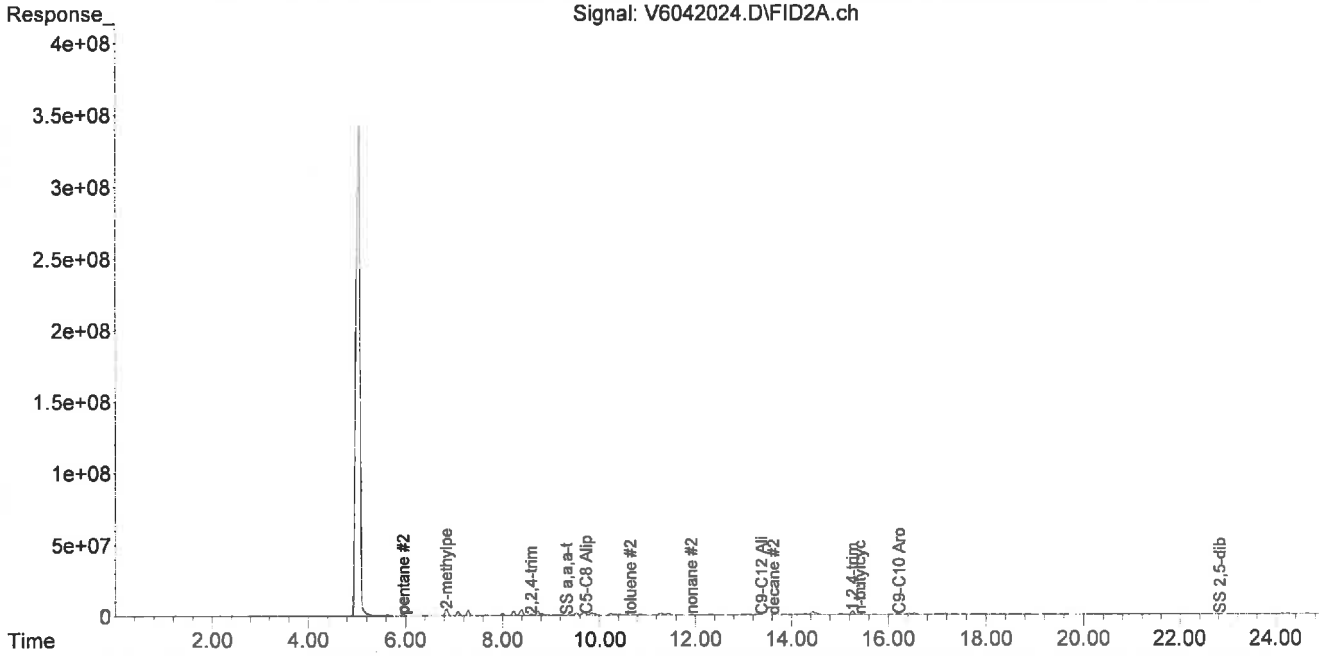
Quantitation Report (QT Reviewed)

Data Path : X:\V6\2018\Apr18\042018\
Data File : V6042024.D
Signal(s) : Signal #1: CPDET1B.ch Signal #2: FID2A.ch
Acq On : 21 Apr 2018 4:36 am
Operator : lmm
Sample : 43997-03 x10-10uLMeOH/5mL
Misc : 10
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Apr 21 12:43:27 2018
Quant Method : X:\V6\methods\V6VPH022818NI2B.M
Quant Title : VOA06 MA VPH
QLast Update : Tue Apr 17 18:23:01 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

43997

Company Name: Credere

Company Address: 776 Main St, Westbrook, ME

Report To: Judd Newcomb

Phone #: 207-828-1272

Invoice to:

Email: JNewcomb@credereIIC.com

PO #:

Project Name: Kennebunk Service Plaza Southbound

Project #: B001445

Project Location: NH MA (ME) VT

Accreditation Required? N/Y:

Protocol: RCRA SDWA NPDES MCP NHDES DOD

Reporting Limits: QAPP GW-1 S-1 EPA DW Other

Quote #

☐ NH Reimbursement Pricing

ANALYSIS REQUEST

☐ VOC 8260 NHDES ☐ VOC 8260 MADEP ☐ VOC 8021VT ☐ VOC BTEX MtBE, only ☐ VOC 624 ☐ VOC 8260

☒ VPH MADEP ☐ GRO 8015 ☐ 1,4-Dioxane ☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:

☐ TPH ☐ DRO 8015 ☒ EPH MADEP ☐ TPH Fingerprint

☐ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB

☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB

☐ O&G 1664 ☐ Mineral O&G 1664

☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity ☐ Apparent Color

☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity ☐ Acidity

☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness

☐ Total Metals-list:

☐ Dissolved Metals-list:

☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC ☐ Ferrous Iron

☐ T-Phosphorus ☐ Bacteria P/A ☐ Bacteria MPN ☐ Enterococci

☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P ☐ Phenols

☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride

☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP

☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide

Subcontract: ☐ Grain Size ☐ Herbicides ☐ Asbestos ☐ PFAS

Grab (G) or Composite (C)

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	SOLID	OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Grab (G) or Composite (C)
4390701	SB-S1 (10-12)	2		X						X	4.12.18	0935	SG	G
-02	SB-S1	3	X			X					4.12.18	1030	SG	
-03	SB-S2 (10-12)	2		X						X	4.12.18	1115	SG	
-04	SB-S4 (10-12)	2		X						X	4.12.18	1135	SG	
-05	SB-S3 (10-12)	2		X						X	4.12.18	1215	SG	
-06	SB-S5 (10-11)	2		X						X	4.12.18	1255	SG	
-07	SB-S6 (10-11)	2		X						X	4.12.18	1325	SG	
-08	SB-S7 (9-10)	2		X						X	4.12.18	1345	SG	
-09	SB-S5	3	X			X					4.12.18	1425	SG	
-10	SB-S10 (10-12)	2		X						X	4.12.18	1505	SG	
-11	SB-S11 (10-12)	2		X						X	4.12.18	1530	SG	

TAT REQUESTED

Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard ☐ (10 Business Days)
*Date Needed 1 Week

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS All analyzed for VPH & EPH, no voc/gases

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) JNewcomb@credereIIC.com

☐ HARD COPY REQUIRED ☐ EDD

RECEIVED ON ICE ☒ YES ☐ NO

TEMPERATURE 6 °C

CUSTODY RECORD

QSD-01 Revision 3/12/18

	Date	Time		Date	Time
Relinquished by Sampler:	4/13/18	1415	Received by:	4/13/18	1415
Relinquished by:	4/13/18	1540	Received by:		
Relinquished by:			Received by Laboratory:	4/13/18	1520

Absolute Resource associates
124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

43997

Company Name: Credere
Company Address: 276 Main St Westbrook ME
Report To: Judd Newcomb
Phone #: 2078281272
Invoice to:
Email: JNewcomb@credere llc.com
PO #:

Project Name: Kennebunk service plaza southbound
Project #: 18001445
Project Location: NH MA (ME) VT
Accreditation Required? N/Y:
Protocol: RCRA MCP SDWA NHDES NPDES DOD
Reporting Limits: QAPP EPA DW GW-1 Other S-1
Quote #
❑ NH Reimbursement Pricing

ANALYSIS REQUEST

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	Sampling: DATE	TIME	SAMPLER	Grab (G) or Composite (C)
43997-12	SB-S12(10-12)	2		X						X	4.12.18	1540	SG	G
-13	SB-S9(10-12	2		X						X	4.12.18	1605	SG	
-14	SB-S8(10-12)	2		X						X	4.12.18	1620	SG	
-15	SB-S9	3	X			X					4.12.18	1650	SG	
-16	Trip Blank	1	X			X								
-17	Trip Blank	1	X							X				

VOC 8260	VOC 624	VPH MADEP	VOC 524.2	TPH ❑ DRO 8015 ❑ TPH MADEP ❑ TPH Fingerprint
-12	-12	-12	-12	-12
-13	-13	-13	-13	-13
-14	-14	-14	-14	-14
-15	-15	-15	-15	-15

❑ VOC 8260 NHDES ❑ VOC 8260 MADEP ❑ VOC BTEX MtBE, only ❑ VOC 8021VT ❑ GRO 8015 ❑ 1,4-Dioxane ❑ VOC 524.2 NH List ❑ Gases-List: ❑ 8270PAH ❑ 8270ABN ❑ 625 ❑ EDB ❑ 8081 Pesticides ❑ 608 Pest/PCB ❑ 8082 PCB ❑ 8081 Pesticides ❑ 608 Pest/PCB ❑ O&G 1664 ❑ Mineral O&G 1664 ❑ pH ❑ BOD ❑ Conductivity ❑ Turbidity ❑ Apparent Color ❑ TSS ❑ TDS ❑ TS ❑ TVS ❑ Alkalinity ❑ Acidity ❑ RCRA Metals ❑ Priority Pollutant Metals ❑ TAL Metals ❑ Hardness ❑ Total Metals-list: ❑ Dissolved Metals-list: ❑ Ammonia ❑ COD ❑ TKN ❑ TN ❑ TON ❑ TOC ❑ Ferrous Iron ❑ T-Phosphorus ❑ Bacteria P/A ❑ Bacteria MPN ❑ Enterococci ❑ Cyanide ❑ Sulfide ❑ Nitrate + Nitrite ❑ Ortho P ❑ Phenols ❑ Nitrate ❑ Nitrite ❑ Chloride ❑ Sulfate ❑ Bromide ❑ Fluoride ❑ Corrosivity ❑ Reactive CN ❑ Reactive S- ❑ Ignitibility/FP ❑ TCLP Metals ❑ TCLP VOC ❑ TCLP SVOC ❑ TCLP Pesticide Subcontract: ❑ Grain Size ❑ Herbicides ❑ Asbestos ❑ PFAS

TAT REQUESTED
Priority (24 hr)* ❑
Expedited (48 hr)* ❑
Standard ❑
(10 Business Days)
*Date Needed/ASAP

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS

REPORTING INSTRUCTIONS ☒ PDF (e-mail address) JNewcomb@credere llc.com
❑ HARD COPY REQUIRED ❑ EDD

RECEIVED ON ICE ☒ YES ❑ NO
TEMPERATURE 6 °C

CUSTODY RECORD
QSD-01 Revision 3/12/18

Relinquished by Sampler:	Date	Time	Received by:	Date	Time
	4/13/18	1415		4/13/18	1415
Relinquished by:	Date	Time	Received by:	Date	Time
	4/13/18	1540			
Relinquished by:	Date	Time	Received by Laboratory:	Date	Time
				4/13/18	1940