



184 Riverview Avenue
Waltham, MA 02453
www.actionenv.net

October 14, 2018

Stephen Walsh
Tanks-A-Lot
110 School Street
Everett, MA 02149

RE: Former Underground Storage Tank Assessment
490 Seawall Road
Southwest Harbor, ME 04679
Action Project # 3671

Dear Mr. Walsh:

On September 26, 2018, Action Environmental Solutions PLLC dba Action Environmental Boston (Action) performed a tank closure assessment at the reported location of a former underground storage tank (UST) under the lawn adjacent to driveway and garage at the above referenced property. The tank was used for the storage of gasoline, according to the previous owner, Robert F. Norberg and the location was marked by the previous owner's son. Soil samples were collected by coring at a 2-foot interval from the land surface to the terminus each boring at three locations. Soil boring location SB-1 was drilled to three feet below land surface. Soil boring location SB-2 was drilled to five feet bls. Soil Boring SB-3 was drilled to three feet bls. The locations of the soil borings are shown on the attached figure. (**Attachment 1**). The collected soil samples were screened for volatile organic compounds (VOCs) with a Thermo Environmental Instruments Inc., Model 580B organic vapor monitor (OVM) in accordance with the Maine Department of Environmental Protection (Maine DEP) "Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil" guidance SOP No. TS004. No VOCs were measured in the soil sample headspace. The soil sampled from the 3 to 5-foot bls interval collected at SB-2 (SS-1 (3-5)) was submitted for Laboratory analysis of volatile petroleum hydrocarbons (VPH) in accordance with Maine DEP Policy. Soil descriptions and headspace values are logged on the attached boring logs (**Attachment 2**). Five feet of 1-inch, 0.010-inch slot, PVC well screen was installed in the boring SB-2 to facilitate the collection of a sample of groundwater for laboratory analysis (GW-101).

The soil sample SS-1 (3-5) and the groundwater sample GW-101 collected from the SB-2 boring location was submitted to New England Testing Laboratory of North Providence, Rhode Island, for analysis of volatile petroleum hydrocarbons (VPH) in accordance with Maine DEP Policy. As indicated in the attached laboratory report (**Attachment 3**), VPHs were not detected. Therefore, in Action's professional opinion, there is no petroleum impact indicated by the screening or laboratory analysis in the soil sampled at the former UST location indicated by Mr. Norberg, the previous owner's son. If you have questions, please contact me at 781-893-9922.

ACTION ENVIRONMENTAL BOSTON

A handwritten signature in blue ink, appearing to read "Glenn A. Carlson".

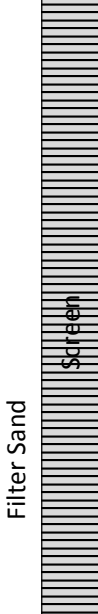
Glenn A. Carlson, LSP
Senior Project Manager

Attachments (3)

Figure 1: Soil Boring Locations, 490 Seawall Rd Southwest Harbor ME



² Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) as measured with the Thermo Environmental Instruments Inc., Model 580B organic vapor monitor (OVM) in accordance with the Maine Department of Environmental Protection (Maine DEP) "Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil" guidance SOP No. TS004.

Environmental Consultants & Engineers 184 Riverview Ave. Phone: 781-893-9922 Waltham, MA 02453 Fax: 781-893-6622				Project # 3671 Location 490 Seawall Rd. Southwest Harbor ME		Action Environmental Boston 			
Boring Co.: AEB Foreman: PG AEI Rep.: GAC Drilling Equipment:				Type Size ID		Sheet 1 of 1 Date 9/26/2018 Boring # SB-2			
				Casing Sampler		Groundwater Date Depth (ft) Stability Time			
DEPTH (ft)	Sample Recovery depth	Blows per 6"	Strata Change	Soil/Rock Stratigraphy¹		Well Construction	Field Test ²	Sample No.	
0				Brown fine SAND, some medium sand; little coarse subround Sand; trace subround fine gravel; trace subround pebbles; well sorted, loose, moist.					
							0 ft		
								0 ppm	0-2'
2				Gray SILT and Clay, little coarse Sand, little subround fine gravel, trace subround pebbles, poorly sorted, loose, saturated.					
								0 ppm	2-4'
4				4-5: Gray SILT and Clay, little coarse Sand, little subround fine gravel, trace subround pebbles, poorly sorted, loose, saturated.					
								0 ppm	4-5'
				End of boring @ 5 feet			5 feet		
6									

¹ Soil Strata Identification: Evaluated according to Burnister Classification System

² Field Test: Photoionization Detector (PID) readings in parts per million by volume (ppmv) as measured with the Thermo Environmental Instruments Inc., Model 580B organic vapor monitor (OVM) in accordance with the Maine Department of Environmental Protection (Maine DEP) "Compendium of Field Testing of Soil Samples for Gasoline and Fuel Oil" guidance SOP No. TS004.



New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 8127015
Client Project: 3671 - SW Harbor, ME

Report Date: 12-October-2018

Prepared for:

Action Environmental
Action Environmental
184 Riverview Ave
Waltham, MA 02453

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 09/27/18. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 8I27015. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
8I27015-01	GW-101	Water	09/26/2018	09/27/2018
8I27015-02	SS-1 (3-5)	Soil	09/26/2018	09/27/2018

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

GW-101 (Lab Number: 8I27015-01)

Analysis

MADEP VPH

Method

MADEP VPH

SS-1 (3-5) (Lab Number: 8I27015-02)

Analysis

MADEP VPH

Method

MADEP VPH

Method References

Method for the Determination of Volatile Petroleum Hydrocarbons, Rev. 2.1, Massachusetts Department of Environmental Protection, 2018

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

VPH

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

In order to meet client specifications, Benzene in sample 'GW-101' was estimated below the standard reporting limit of 5ug/L.

Volatile Petroleum Hydrocarbons
Sample: GW-101 (8I27015-01)

SAMPLE INFORMATION

Matrix	Water		
Containers	Satisfactory		
Sample Preservation	Aqueous	pH<2	
	Soil or Sediment	NA	
		NA	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1	Client ID		GW-101			
Method for Target Analytes: MADEP VPH-18-2.1	Lab ID		8I27015-01			
VPH Surrogate Standards: PID: 2,5-Dibromotoluene FID: 2,5-Dibromotoluene	Date Collected		09/26/18			
	Date Received		09/27/18			
	% Moisture		NA			
RANGE/TARGET ANALYTE	Elution Range	Dilution	RL	Units	Result	Analyzed
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	1X	50.0	ug/l	<50.0	10/01/18 18:32
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	1X	50.0	ug/l	<50.0	10/01/18 18:32
Benzene	C5-C8	1X	4.0	ug/l	<4.0	10/01/18 18:32
Ethylbenzene	C9-C12	1X	5.0	ug/l	<5.0	10/01/18 18:32
Methyl t-butyl ether (MTBE)	C5-C8	1X	10.0	ug/l	<10.0	10/01/18 18:32
Naphthalene	NA	1X	10.0	ug/l	<10.0	10/01/18 18:32
Toluene	C5-C8	1X	5.0	ug/l	<5.0	10/01/18 18:32
m&p-Xylene	C9-C12	1X	10.0	ug/l	<10.0	10/01/18 18:32
o-Xylene	C9-C12	1X	10.0	ug/l	<10.0	10/01/18 18:32
Total xylenes		1X	10.0	ug/l	<10.0	10/01/18 18:32
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	1X	50.0	ug/l	<50.0	10/01/18 18:32
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	1X	50.0	ug/l	<50.0	10/01/18 18:32
C9-C10 Aromatic Hydrocarbons [1]	NA	1X	50.0	ug/l	<50.0	10/01/18 18:32
2,5-Dibromotoluene-PID					82.6	10/01/18 18:32
2,5-Dibromotoluene-FID					96.6	10/01/18 18:32
Surrogate Acceptance Range					70-130%	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: SS-1 (3-5) (8I27015-02)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1	Client ID		SS-1 (3-5)			
Method for Target Analytes: MADEP VPH-18-2.1	Lab ID		8I27015-02			
VPH Surrogate Standards: PID: 2,5-Dibromotoluene FID: 2,5-Dibromotoluene	Date Collected		09/26/18			
	Date Received		09/27/18			
	% Moisture		13.50			
RANGE/TARGET ANALYTE	Elution Range	Dilution	RL	Units	Result	Analyzed
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	3.2	mg/kg	<3.2	10/03/18 10:59
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	3.2	mg/kg	<3.2	10/03/18 10:59
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	10/03/18 10:59
Ethylbenzene	C9-C2	50X	0.3	mg/kg	<0.3	10/03/18 10:59
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	10/03/18 10:59
Naphthalene	NA	50X	0.6	mg/kg	<0.6	10/03/18 10:59
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	10/03/18 10:59
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	10/03/18 10:59
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	10/03/18 10:59
Total xylenes		50X	0.6	mg/kg	<0.6	10/03/18 10:59
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	3.2	mg/kg	<3.2	10/03/18 10:59
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	3.2	mg/kg	<3.2	10/03/18 10:59
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	3.2	mg/kg	<3.2	10/03/18 10:59
2,5-Dibromotoluene-PID					92.9	10/03/18 10:59
2,5-Dibromotoluene-FID					100	10/03/18 10:59
Surrogate Acceptance Range					70-130%	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range

[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range

[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Quality Control

Volatile Petroleum Hydrocarbons (MADEP-VPH)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8J0087 - MADEP VPH										
Blank (B8J0087-BLK1)					Prepared & Analyzed: 10/01/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		50.0	ug/l						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		50.0	ug/l						
Benzene	ND		5.0	ug/l						
Ethylbenzene	ND		5.0	ug/l						
Methyl t-butyl ether (MTBE)	ND		10.0	ug/l						
Naphthalene	ND		10.0	ug/l						
Toluene	ND		5.0	ug/l						
m&p-Xylene	ND		10.0	ug/l						
o-Xylene	ND		10.0	ug/l						
Total xylenes	ND		10.0	ug/l						
C5-C8 Aliphatic Hydrocarbons	ND		50.0	ug/l						
C9-C12 Aliphatic Hydrocarbons	ND		50.0	ug/l						
C9-C10 Aromatic Hydrocarbons	ND		50.0	ug/l						
<i>Surrogate: 2,5- Dibromotoluene-PID</i>			41.9	ug/l	50.0		83.8	70-130		
<i>Surrogate: 2,5- Dibromotoluene-FID</i>			47.4	ug/l	50.0		94.7	70-130		
LCS (B8J0087-BS1)										
					Prepared & Analyzed: 10/01/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	144		50.0	ug/l				70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	90.5		50.0	ug/l				70-130		
Benzene	47.2			ug/l	50.0		94.4	70-130		
Ethylbenzene	55.5			ug/l	50.0		111	70-130		
Methyl t-butyl ether (MTBE)	53.5			ug/l	50.0		107	70-130		
Naphthalene	46.7			ug/l	50.0		93.4	70-130		
Toluene	52.4			ug/l	50.0		105	70-130		
m&p-Xylene	112			ug/l	100		112	70-130		
o-Xylene	54.3			ug/l	50.0		109	70-130		
C9-C10 Aromatic Hydrocarbons	52.9		50.0	ug/l				70-130		
<i>Surrogate: 2,5- Dibromotoluene-PID</i>			45.1	ug/l	50.0		90.2	70-130		
<i>Surrogate: 2,5- Dibromotoluene-FID</i>			49.2	ug/l	50.0		98.5	70-130		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8J0087 - MADEP VPH (Continued)										
LCS Dup (B8J0087-BSD1)					Prepared & Analyzed: 10/01/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	137		50.0	ug/l				70-130	5.37	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	84.0		50.0	ug/l				70-130	7.44	25
Benzene	46.8			ug/l	50.0		93.5	70-130	0.915	25
Ethylbenzene	54.8			ug/l	50.0		110	70-130	1.23	25
Methyl t-butyl ether (MTBE)	53.8			ug/l	50.0		108	70-130	0.615	25
Naphthalene	47.5			ug/l	50.0		94.9	70-130	1.64	25
Toluene	52.0			ug/l	50.0		104	70-130	0.843	25
m&p-Xylene	111			ug/l	100		111	70-130	1.07	25
o-Xylene	53.7			ug/l	50.0		107	70-130	1.00	25
C9-C10 Aromatic Hydrocarbons	52.3		50.0	ug/l				70-130	1.21	25
Surrogate: 2,5- Dibromotoluene-PID			45.9	ug/l	50.0		91.8	70-130		
Surrogate: 2,5- Dibromotoluene-FID			49.1	ug/l	50.0		98.3	70-130		
Batch: B8J0174 - MADEP VPH										
Blank (B8J0174-BLK1)					Prepared: 10/02/18 Analyzed: 10/03/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		0.05	mg/kg						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		0.05	mg/kg						
Benzene	ND		0.005	mg/kg						
Ethylbenzene	ND		0.005	mg/kg						
Methyl t-butyl ether (MTBE)	ND		0.001	mg/kg						
Naphthalene	ND		0.01	mg/kg						
Toluene	ND		0.005	mg/kg						
m&p-Xylene	ND		0.01	mg/kg						
o-Xylene	ND		0.01	mg/kg						
Total xylenes	ND		0.01	mg/kg						
C5-C8 Aliphatic Hydrocarbons	ND		0.05	mg/kg						
C9-C12 Aliphatic Hydrocarbons	ND		0.05	mg/kg						
C9-C10 Aromatic Hydrocarbons	ND		0.05	mg/kg						
Surrogate: 2,5- Dibromotoluene-PID			43.6	ug/l	50.0		87.2	70-130		
Surrogate: 2,5- Dibromotoluene-FID			50.1	ug/l	50.0		100	70-130		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8J0174 - MADEP VPH (Continued)										
LCS (B8J0174-BS1)										
					Prepared: 10/02/18 Analyzed: 10/03/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	0.2		0.05	mg/kg				70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.09		0.05	mg/kg				70-130		
Benzene	47.4			ug/l	50.0		94.8	70-130		
Ethylbenzene	56.8			ug/l	50.0		114	70-130		
Methyl t-butyl ether (MTBE)	56.0			ug/l	50.0		112	70-130		
Naphthalene	50.2			ug/l	50.0		100	70-130		
Toluene	55.8			ug/l	50.0		112	70-130		
m&p-Xylene	113			ug/l	100		113	70-130		
o-Xylene	57.1			ug/l	50.0		114	70-130		
C9-C10 Aromatic Hydrocarbons	0.06		0.05	mg/kg				70-130		
Surrogate: 2,5- Dibromotoluene-PID			50.7	ug/l	50.0		101	70-130		
Surrogate: 2,5- Dibromotoluene-FID			50.0	ug/l	50.0		100	70-130		
LCS Dup (B8J0174-BSD1)										
					Prepared: 10/02/18 Analyzed: 10/03/18					
Unadjusted C5-C8 Aliphatic Hydrocarbons	0.1		0.05	mg/kg				70-130	3.96	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	0.08		0.05	mg/kg				70-130	4.46	25
Benzene	47.0			ug/l	50.0		94.1	70-130	0.783	25
Ethylbenzene	56.1			ug/l	50.0		112	70-130	1.21	25
Methyl t-butyl ether (MTBE)	55.1			ug/l	50.0		110	70-130	1.60	25
Naphthalene	49.5			ug/l	50.0		99.1	70-130	1.42	25
Toluene	55.3			ug/l	50.0		111	70-130	0.972	25
m&p-Xylene	112			ug/l	100		112	70-130	1.05	25
o-Xylene	56.1			ug/l	50.0		112	70-130	1.70	25
C9-C10 Aromatic Hydrocarbons	0.06		0.05	mg/kg				70-130	1.16	25
Surrogate: 2,5- Dibromotoluene-PID			50.0	ug/l	50.0		99.9	70-130		
Surrogate: 2,5- Dibromotoluene-FID			48.6	ug/l	50.0		97.1	70-130		

Notes and Definitions

Item	Definition
J	Below reporting limit
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.



NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street
West Warwick, RI 02893
1-888-863-8522

***Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates, CT ETPH



UNDERSTANDING EXTRACTABLE PETROLEUM HYDROCARBONS and VOLATILE PETROLEUM HYDROCARBONS WATER TEST RESULTS

The purpose of this informational handout is to help you understand petroleum test results for your drinking water. The Maine Department of Environmental Protection [DEP] relies on laboratory tests called EPH [Extractable Petroleum Hydrocarbons] and VPH [Volatile Petroleum Hydrocarbons] to test for the presence of gasoline or fuel oil in drinking water. These tests provide information needed to determine if drinking water supplies near petroleum spills are contaminated with petroleum above health-based guidelines.

Petroleum does not contain just one single compound [for example benzene], but many hundreds of compounds, all based on the chemistry of carbon and hydrogen. That is why petroleum compounds are commonly referred to as “hydrocarbons.” Some of the compounds contained in petroleum [again, for example benzene] are more harmful than others. The EPH and VPH tests identify concentrations of the more harmful compounds and those that are more abundant in fuels [called target compounds] and also identify all of the remaining petroleum hydrocarbons by grouping compounds with similar chemical properties and toxicity into “fractions” as shown on the table below. Each fraction has its own health guideline.

EPH/VPH Defined Hydrocarbon Fractions

Hydrocarbon Fraction	Analytical Method
C9-C18 aliphatics	EPH
C19-C36 aliphatics	EPH
C11-C22 aromatics	EPH
C5-C8 aliphatics	VPH
C9-C12 aliphatics	VPH
C9-C10 aromatics	VPH

To determine the health risk from petroleum contamination in your water, DEP may have to use one or both tests. Our recommendations for testing depend on the type of petroleum product spilled as outlined in the table below.

Recommendations for EPH and VPH Testing

Petroleum Product	VPH	EPH
Gasoline	X	
Fresh diesel/#2 fuel oil	X	X
Weathered diesel/#2 fuel oil		X
#3 - #6 fuel oils		X
Waste oil	X	X
Jet fuels/kerosene	X	X
Mineral oil/dielectric oils		X
Unknown oils or sources	X	X

To determine if a water supply is safe to use, the DEP compares sample results from these tests to a list of health-based guidelines developed by the Maine Center for Disease Control and Prevention’s [CDC’s] Environmental Toxicology Program. These guidelines are conservative and assume you will drink approximately two quarts of water from this particular water supply every day for 70 years. Although EPH/VPH test results are detailed and require explanation, these test methods do a better job of addressing the health implications of petroleum releases than previous [simpler] testing and allow the DEP to better determine appropriate actions for protecting drinking water based on human health concerns.

Below are explanations of the various sections of most laboratory reports.

Result: Numbers contained in this column represent the concentration of target compounds and fractions detected in your water. Compare these numbers to the drinking water guidelines in the table below. Results above the guidelines indicate that the water may not be safe for regular use without treatment. Results less than the guidelines are generally considered to be safe for use. When test results are close to the drinking water guideline, the DEP may still wish to take measures to address the petroleum found.

GUIDELINES FOR TARGET COMPOUNDS AND FRACTIONS

Test	Target Compound	Guideline [ug/L or PPB]
VPH TEST	Benzene	4
	Ethylbenzene	30
	Methyl-tert-butyl ether (MTBE)	35
	Naphthalene	10
	Toluene	600
	Total xylenes	1,000
	<i>Fractions:</i>	
	C5-C8 Aliphatic Hydrocarbons	300
	C9-C12 Aliphatic Hydrocarbons	700
	C9-C10 Aromatic Hydrocarbons	200
EPH TEST	2-Methylnaphthalene	30
	Acenaphthene	400
	Acenaphthylene	400
	Anthracene	2,000
	Benzo(a)anthracene	0.5
	Benzo(a)pyrene	0.05
	Benzo(b)fluoranthene	0.5
	Benzo(g,h,i)perylene	200
	Benzo(k)fluoranthene	5
	Chrysene	50
	Dibenz(a,h)anthracene	0.05
	Fluoranthene	300
	Fluorene	300
	Indeno(1,2,3-cd)pyrene	0.5
	Naphthalene	10
	Phenanthrene	200
	Pyrene	200
	<i>Fractions:</i>	
	C9-C18 Aliphatic Hydrocarbons	700
	C19-C36 Aliphatic Hydrocarbons	14,000
	C11-C22 Aromatic Hydrocarbons	200

The analytical results section also contains the following information:

- **Range/Target Analyte:** This is a list of the parameters that are included on the test. Note that unadjusted results should be ignored. They are included only for DEP information purposes.
- **Surrogate %Recovery:** Surrogate chemicals are added to the sample in the laboratory to determine the accuracy of the test. These chemicals were **not** found in your water.
- **RL [Reporting Limit]:** The minimum concentration of a compound or a hydrocarbon fraction that the laboratory will report. Concentrations less than this RL are reported out in the result column as “U” (undetected) or < [less than] the reporting limit. In some cases the laboratory will report an estimated concentration lower than the RL and flag the result with a “J” to indicate the number is estimated.
- **Units:** How the sample was measured, usually in micrograms per liter [ug/l] or parts per billion [ppb] for water samples. Micrograms per liter are comparable to parts per billion.

For Further Assistance: If you have questions or need assistance understanding your petroleum test results and what they mean, please call the DEP chemist at 207-287-7878.