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planning, permitting, design, construction, operation, maintenance Weston&Sampson®

478 – 480 Union Street, New Bedford
Weston & Sampson Project No. 2100451

December 13, 2012

City of New Bedford
Ms. Michele Paul, LSP, Director
Department of Environmental Stewardship
133 Williams Street
New Bedford, Massachusetts 02740

Re: Additional Phase II Environmental Site Assessment
478 - 480 Union Street
New Bedford, Massachusetts

Dear Ms. Paul:

Weston & Sampson is pleased to submit this letter report summarizing the results of an Additional Phase II Environmental Site Assessment (ESA) performed at 478 - 480 Union Street, New Bedford, Massachusetts (the "Site"). This additional assessment was funded by the United States Environmental Protection Agency (EPA) through a Brownfield Assessment Grant issued to the City of New Bedford. It is the City's intent to redevelop this Site and this assessment is part of the process. This additional assessment was designed to supplement previous investigation at the Site. The Scope of Services for this additional Phase II ESA was documented in a Site Specific Addendum to Weston & Sampson's Generic Quality Assurance Project Plan, approved by the EPA on September 28, 2012. The following is a summary of the Site and the Phase II ESA performed:

SITE DESCRIPTION

The Site consists of an undeveloped 0.42 acre parcel of land. An automobile service garage was located at the Site between 1915 and the late 1970's. Numerous underground storage tanks (USTs) were historically located at the Site. Information regarding the assessment and closure of the USTs is very limited. Weston & Sampson performed an initial Phase II ESA at the Site in the spring of 2011. The Phase II ESA identified petroleum impacted soil in exceedance of applicable Massachusetts Department of Environmental Protection (DEP) reportable concentration (RC) S-1 standards. The impacted soils were identified on the northwestern and northern portion of the Site in the area of former gasoline USTs and on the western portion of the Site in the area of former fuel oil USTs. Additionally, a concentration of lead was identified in fill material soils on the northern portion of the Site above the RCS-1 standard.

The identification of soil impacted above RCS-1 standards represented a 120-day reportable release condition to the DEP. On October 3, 2011, Weston & Sampson reported the release condition to the DEP on behalf of the City of New Bedford. At that time the DEP assigned Release Tracking Number (RTN) 4-23596 to the Site. An Additional Phase II ESA was performed in May 2012 to further assess the nature and extent of impacted soil and groundwater. Results of the assessment confirmed that petroleum impacted soils remain at the Site above DEP Method 1 S-1 standards. However, analysis of groundwater samples collected throughout the Site did not identify concentrations above applicable GW-2/3 standards.

In October 2012, Weston & Sampson submitted a Phase I Initial Site Investigation Report and Tier Classification to the DEP. The Site was classified as a Tier II Site.

ADDITIONAL PHASE II ESA

Weston & Sampson performed an Additional Phase II ESA at the Site in November 2012 to further define the extent of impacted soil, including potential impacts to neighboring properties to the west and south, and to obtain additional data within the boundaries of the Site for remedial planning / risk characterization purposes. The assessment included:

- Advancement of ten (10) soil borings.
- Field screening of soil samples for the presence of total volatile organics.
- Collection and analysis of soil samples.

The following is a summary of the results of the assessment. See Figure 1 - Site Locus for the Site location and Figure 2 – Site Plan for sample locations.

SOIL BORINGS

On November 2, 2012, Weston & Sampson documented the advancement of 10 soil borings (WS-25 through WS-34) at the Site. The borings were advanced by New England Geotech of Jamestown, Rhode Island utilizing Geoprobe drilling techniques. The soil borings were installed in the following areas:

Area 1 - Former Gasoline USTs - Northwestern Portion of Site: Borings WS-25 and WS-26 were advanced on the neighboring property to the west.

Area 2 - Former Gasoline USTs - Northern Portion of Site: Borings WS-33 and WS-34 were advanced on-Site to the north and west of Area 2.

Area 3 - Former Fuel Oil USTs - Western Portion of Site: Borings WS-27 through WS-30 were advanced on the neighboring property to the west. Boring WS-31 was advanced on the neighboring property to the south. Boring WS-32 was advanced on-Site to the east of Area 3.

The borings were installed to depths between 15 and 20 feet below grade surface (bgs). Boring logs are included as Appendix A.

SOIL SAMPLING / FIELD SCREENING / ANALYSIS

Soil samples were collected from each soil boring by a Weston & Sampson geologist at continuous intervals during the advancement of the borings. In general, soils encountered consisted of fine to medium sand with some gravel in each of the borings. Fill material was identified in boring WS-33 and WS-34 between 0-5' bgs. The fill consisted of fine to medium sand with pieces of asphalt and concrete.

Each soil sample was field-screened for total volatile organics (TVOCs) using a photoionization detector (PID). Detectable field screening results are summarized in Tables 1a, 1b and 1c, attached. Complete field screening results are included in the attached boring logs. A summary of our field screening findings are included below:

Area 1 - Former Gasoline USTs - Northwestern Portion of Site: As shown in Table 1a, field screening of soil samples collected from WS-25 and WS-26 between 15-20 feet bgs identified concentrations of TVOCs ranging from 110 to 127 ppmv. However, field screening of soil samples collected from 0-15' within these borings did not identify levels of TVOCs above 5 ppmv. Based on field screening results, soil sample WS-26 (13-15') was selected for laboratory analysis in an effort to delineate the western extent of soil impacts between 0-15' in this area.

Area 2 - Former Gasoline USTs - Northern Portion of Site: As shown in Table 1b, field screening of soil samples collected from WS-33 and WS-34 between 10-20 feet bgs identified concentrations of TVOCs ranging from 8.7 to 941 ppmv. These results were similar to results obtained from previous assessments in this area of the Site and soil samples were therefore not submitted for analysis. However, the field screening data generated from these borings can be utilized for remedial planning purposes as they help define the extent of contamination.

Area 3 - Former Fuel Oil USTs - Western Portion of Site: As shown in Table 1c, field screening of soil samples collected from boring WS-27, WS-28 and WS-29 between 10-20 feet bgs identified concentrations of TVOCs ranging from 7.5 to 163 ppmv. Field screening of soil samples collected from WS-30, 31 and 32 did not identify TVOCs above 1 ppmv. Based on field screening results, soil samples WS-30 (13-15') and WS-31 (13-15') were selected for laboratory analysis in an effort to delineate the western and southern extent of soil impacts between 0-15' bgs in this area.

SOIL ANALYTICAL RESULTS

Soil samples WS-26 (13-15'), WS-30 (13-15') and WS-31(13-15') were placed in pre-labeled laboratory supplied containers, preserved on ice in a cooler, and transported to Con-test Analytical Laboratory in East Longmeadow, Massachusetts. Sample WS-26 (13-15') was submitted for analysis of Volatile Petroleum Hydrocarbons (VPH) with targeted Volatile Organic Compounds (VOCs) via DEP methodology, and samples WS-30 (13-15') and WS-31 (10-15') were submitted for Extractable Petroleum Hydrocarbons (EPH) with targeted Polynuclear Aromatic Hydrocarbons (PAHs) and VPH with targeted VOCs via DEP methodology.

A summary table of the soil analytical results is attached as Table 2. Complete copies of laboratory analytical reports are attached as Appendix B. As shown on the attached table, analysis of the soil samples did not identify detectable concentrations of EPH, PAHs, VPH and/or VOCs. Results are compared to Method 1 standards as a preliminary characterization of risk. No contaminant concentrations were detected above Method 1 standards.

CONCLUSIONS

The Additional Phase II ESA was successful in delineating the horizontal extent of petroleum impacted soil located between 0-15 feet on the neighboring properties to the west and to the south of the Site. In Area 1, the western extent has been delineated by boring WS-26. In Area 3, the western extent is delineated by boring WS-30 and the southern extent is delineated by boring WS-31.

The results of this investigation have been provided to the owners of the neighboring properties to the south and west of the Site, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP).

Based on the results of our assessments performed at the Site, Weston & Sampson recommends the following:

1) We recommend proceeding with evaluation and planning for remediation of petroleum impacted soil. Additional soil and groundwater samples should be collected and analyzed to determine the scope and extent of impacted soil removal. Remedial activities should be performed in accordance with the MCP, either as a Release Abatement Measure (RAM) or following a Phase III Evaluation of Remedial Alternatives and documented Phase III Remedial Action Plan (RAP) under a Phase IV Remedial Implementation Plan (RIP).

If you have any questions regarding this letter report, please do not hesitate to contact the undersigned at (978) 532-1900.

Very truly yours,
WESTON & SAMPSON

Sean F. Healey
Project Manager

George Naslas, P.G., LSP
Associate

Attachments: Figures, Tables, Appendix A, B

FIGURES

FIGURE 1
NEW BEDFORD, MASSACHUSETTS
478-480 UNION STREET

LOCUS MAP

0 2,000 4,000 **Feet**

Weston&Sampson®

O:\New Bedford\Reports\Union Street Site\Figure 1 - Locus Map.mxd 9/10/2010 12:01:45 PM commonuse

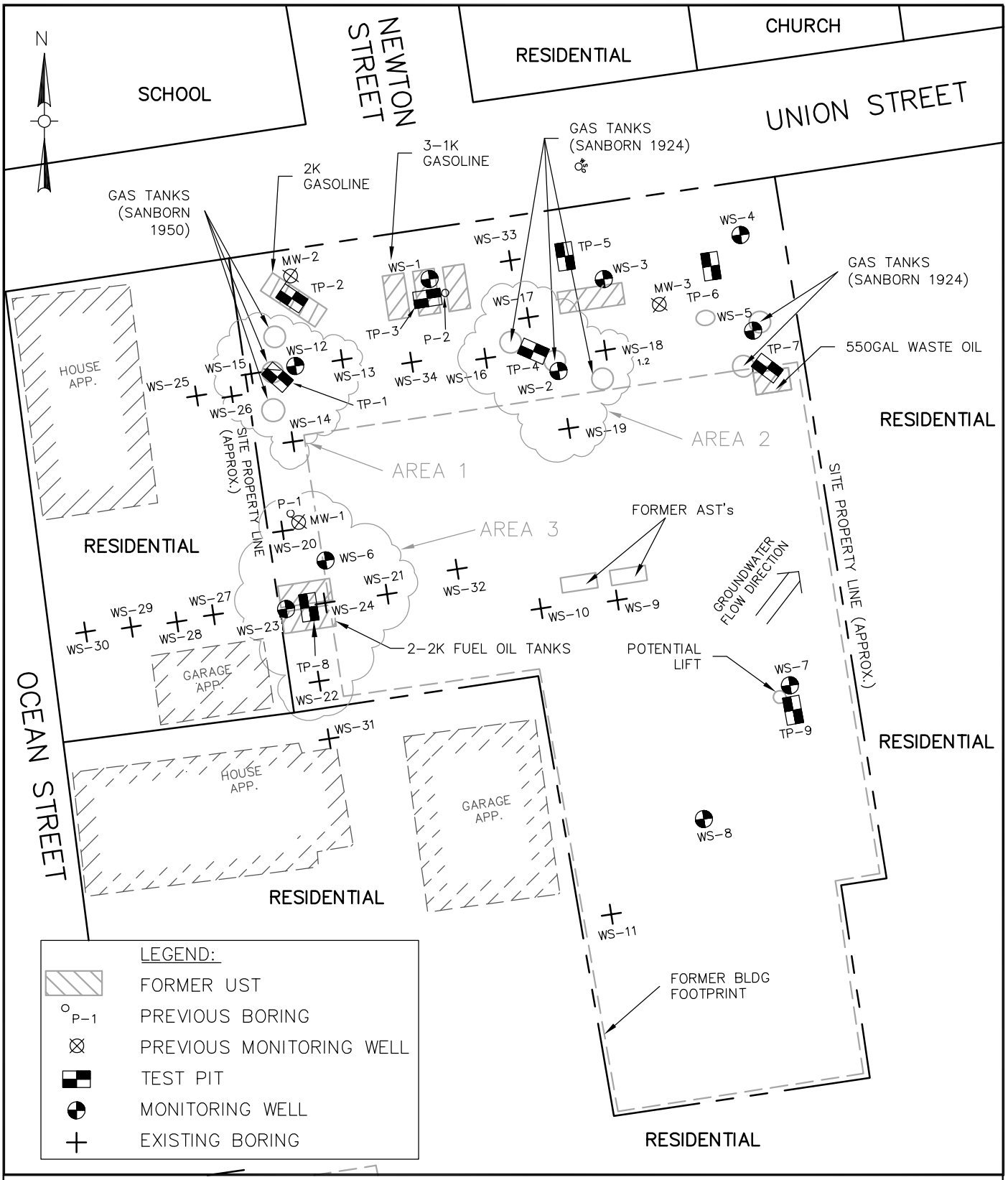

FIGURE 2
478-480 UNION STREET
NEW BEDFORD, MASSACHUSETTS
SITE PLAN
SCALE: 1"=30'

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TABLES

Table 1a Area 1 - Field Screening Results		
Location	**Sample ID**	**TVOCs (ppmv)**
Area 1 **Former Gasoline USTs - Northwestern Portion of Site (1950 Sanborn)**	WS-25 (10-14') WS-25 (15-20')	0.6 110
	WS-26 (13-15') WS-26 (15-17') WS-26 (17-20')	4.0 127 0.6

Table 1b Area 2- Field Screening Results		
Location	**Sample ID**	**TVOCs (ppmv)**
Area- 2 **Former Gasoline USTs - Northern Portion of Site (1924 Sanborn)**	WS-33 (10-15') WS-33 (15-20')	8.7 623
	WS-34 (10-13') WS-34 (13-15') WS-34 (15-19') WS-34 (19-20')	0.1 194 941 6.9

Table 1c Area 3 - Field Screening Results		
Location	**Sample ID**	**TVOCs (ppmv)**
Area 3 **Former 2K Fuel Oil USTs - Western Portion of Site**	WS-27 (10-13') WS-27 (13-15') WS-27 (15-17') WS-27 (17-20')	7.5 162 47.3 7.8
	WS-28 (10-13') WS-28 (13-15') WS-28 (15-20')	18.2 163 0.4
	WS-29 (10-13') WS-29 (13-15') WS-29 (15-17')	118 110 1.3
	WS-30 (10-13') WS-30 (13-15') WS-30 (15-17')	0.1 0.3 0.1
	WS-31 (10-13') WS-31 (13-15') WS-31 (15-17')	0.1 0.1 0.1
	WS-32 (10-13') WS-32 (13-15')	0.1 0.0

Table 2
Weston & Sampson
Summary of Soil Analytical Results - Adjacent Properties
478 - 480 Union Street
New Bedford, MA

Sample ID	WS-26 (13-15')	WS-30 (13-15')	DUP WS-30 (13-15')	WS-31 (13-15')	Method 1 Soil Standards	
Date Sampled	11/2/2012	11/2/2012	11/2/2012	11/2/2012	S1/GW2 mg/kg	S1/GW3 mg/kg
Parameters (mg/kg)						
EPH						
C9-C18 Aliphatics	--	<23	<12	<12	1,000	1,000
C19-C36 Aliphatics	--	<23	<12	<12	3,000	3,000
C11-C22 Aromatics	--	<23	<12	<12	1,000	1,000
Target PAH's	--	<.023	<0.12	<0.12	***	***
VPH						
C5-C8 Aliphatics	<7.9	<9.1	<8.7	<8.6	100	100
C9-C12 Aliphatics	<7.9	<9.1	<8.7	<8.6	1,000	1,000
C9-C10 Aromatics	<7.9	<9.1	<8.7	<8.6	100	100
Target VOCs	ND	ND	ND	ND	***	***

Notes:
"--" = Not Analyzed
ND= Not Detected. Detection Limit Varies with Compound.
*** = Standard varies with Compound.
Method 1 Standards are from the MCP, 310 CMR 40.0000, revised February 14, 2008.

APPENDIX A

SOIL BORING LOGS

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-25

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME
		11		

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.3	0-4" Top soil 4"- 5' Brown silty SAND with some GRAVEL.		
5			60/48	5-10		0.9	Grey fine silty SAND with some gravel. Medium to coarse SAND 9-10'.		
10			60/60	10-14		0.6	Brown fine to medium SAND with some GRAVEL.		
				14-15		0.3	13.5-14' feet -WET.		
15			60/60	15-20		110	15-17' Brown to grey fine to medium SAND. 17-20' Fine silty SAND.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-25

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-26

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.0	0-1' Top soil Light brown silty SAND.		
5			60/36	5-10		0.0	Grey fine to medium SAND with some GRAVEL.		
10			60/36	10-13		0.0	10-13' Fine to medium SAND with some GRAVEL.		
				13-15		4.0	13-15' Grey fine silty SAND with some coarse SAND.		
15			60/55	15-17		127	Brown to grey fine to medium SAND with some GRAVEL. Saturated.		
				17-20		0.6			
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

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2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-26

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-27

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.0	0-8" Top soil 8"- 5' Brown fine to medium SAND with some GRAVEL.		
5			60/36	5-10		0.0	Brown fine to medium SAND with some GRAVEL.		
10			60/48	10-13		7.5	Brown to grey fine to medium SAND with some GRAVEL.		
				13-15		162	Grey fine to medium SAND.		
15			60/48	15-17		47.3	Brown to grey fine to medium SAND.		
				17-20		7.8	Brown fine silty SAND.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

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2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-27

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-28

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/60	0-5		0.0	0-6" Top soil 6"- 5' Brown fine to medium SAND with some some GRAVEL.		
5			60/60	5-10		0.0	Brown fine to medium SAND with some GRAVEL.		
10			60/60	10-13		18.2	Brown to grey fine to medium SAND and GRAVEL.		
				13-15		163	Grey fine to coarse SAND.		
15			60/60	15-20		0.4	Brown fine to medium SAND with silty SAND.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
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BORING No. WS-28

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-29

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.0	0-8" Top soil 8"- 5' Brown fine to medium SAND with some some GRAVEL.		
5			60/54	5-10		0.0	Grey fine silty SAND with some gravel.		
10			60/60	10-13		118	Fine to medium brown to grey SAND with some GRAVEL.		
				13-15		110	Brown fine silty SAND.		
15			60/60	15-17		1.3	Brown fine silty SAND with some medium SAND.		
				17-20		0.3	Brown fine silty SAND with some GRAVEL.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
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BORING No. WS-29

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-30

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.0	0-6" Top soil 6"- 5' Brown fine to medium sand with some GRAVEL.		
5			60/50	5-10		0.0	Brown fine to medium SAND with some GRAVEL.		
10			60/60	10-13		0.1	Grey fine to medium SAND with GRAVEL.		
				13-15		0.3	Brown fine silty SAND with some GRAVEL.		
15			60/60	15-17		0.1	Brown to grey fine silty SAND.		
				17-20		0.2	Brown to grey fine to coarse SAND.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
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Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-31

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/48	0-5		0.0	0-10" Top soil 10"- 5' Grey to brown fine SAND with some GRAVEL.		
5			60/36	5-10		0.0	Grey to brown fine SAND.		
10			60/60	10-13		0.1	Brown fine to medium SAND with some GRAVEL.		
				13-15		0.1	Light brown silty SAND.		
15			60/60	15-20		0.1	Light brown fine SAND. Saturated.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-31

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-32

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/24	0-5		0.0	0-6" Top soil 6"- 5' Brown SAND with some GRAVEL.		
5			60/48	5-10		0.0	Light brown fine to medium SAND.		
10			60/60	10-13'		0.1	Grey fine to medium SAND with GRAVEL.		
				13-15'		0.0	Grey to brown fine to medium SAND with GRAVEL. Wet at 13'		
15				15-20			Refusal at 15.5'		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-32

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-33

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/36	0-5		0.0	Brown FILL with fine to coarse SAND with some GRAVEL, brick, ash and concrete pieces.		
5			60/50	5-10		0.0	Brown to tan fine to medium SAND with some GRAVEL.		
10			60/15	10-15		8.7	Brown to grey fine to medium SAND with GRAVEL.		
15			60/55	15-20		623	Brown to grey fine to medium SAND with some GRAVEL. Strong odor. Saturated.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-33

Weston & Sampson

PROJECT

478-480 Union Street
New Bedford, MA

REPORT OF BORING No. WS-34

SHEET 1 OF 1

Project No. 2100451

CHKD BY

BORING Co. New England Geotech

FOREMAN Hayes

WSE GEOLOGIST: Padraic Kavanagh

BORING LOCATION See attached plan

GROUND SURFACE ELEV. DATUM

DATE START 11/2/12 DATE END 11/2/12

SAMPLER: Geoprobe Truck Rig

CASING:

CASING SIZE: N/A Method Direct push

GROUNDWATER READINGS

DATE	TIME	WATER AT	CASING AT	STABILIZATION TIME

DEPTH (feet)	CASING (lb/ft)	SAMPLE No.	PEN/REC (in)	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION Burmister Classification	NOTES	STRATUM DESCRIPTION
			60/30	0-5		0.0	FILL. Fine to medium SAND with GRAVEL with pieces of asphalt, and concrete.		
5			60/48	5-10		0.0	Brown to orange fine to medium SAND with some GRAVEL.		
10			60/50	10-13		0.1	Fine silty SAND with some GRAVEL.		
				13-15		194	Fine silty SAND with some GRAVEL. Fine to medium SAND.		
15			60/55	15-19		941	Grey / blue fine to medium SAND with GRAVEL. Strong odor.		
				19-20		6.9	Brown fine to medium SAND and GRAVEL.		
20									
25									
30									
35									

GRANULAR SOILS		COHESIVE SOILS	
BLOWS/FT	DENSITY	BLOWS/FT	DENSITY
0-4	V. LOOSE	0-2	V. SOFT
4-10	LOOSE	2-4	SOFT
10-30	M. DENSE	4-8	M. STIFF
30-50	DENSE	8-15	STIFF
> 50	V. DENSE	15-30	V. STIFF
		> 30	HARD

REMARKS:

NOTES:

1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THIS BORING LOG. FLUCTUATIONS IN THE LEVEL OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS ARE MADE.

BORING No. WS-34

APPENDIX B

LABORATORY ANALYTICAL REPORTS

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

November 12, 2012

Sean Healey
Weston & Sampson - Foxborough
100 Foxboro Boulevard, Suite 250
Foxborough, MA 02035

Project Location: Union St., New Bedford
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 12K0153

Enclosed are results of analyses for samples received by the laboratory on November 5, 2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

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

Weston & Sampson - Foxborough
100 Foxboro Boulevard, Suite 250
Foxborough, MA 02035
ATTN: Sean Healey

REPORT DATE: 11/12/2012

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 12K0153

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Union St., New Bedford

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WS-26 (13-15)	12K0153-01	Soil		MADEP-VPH-04-1.1	
				SM 2540G	
WS-30 (13-15)	12K0153-02	Soil		MADEP-EPH-04-1.1	
				MADEP-VPH-04-1.1	
				SM 2540G	
WS-31 (13-15)	12K0153-03	Soil		MADEP-EPH-04-1.1	
				MADEP-VPH-04-1.1	
				SM 2540G	
Dup-1	12K0153-04	Soil		MADEP-EPH-04-1.1	
				MADEP-VPH-04-1.1	
				SM 2540G	
Trip Blank	12K0153-05	Trip Blank Soil		MADEP-VPH-04-1.1	

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

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

MADEP-EPH-04-1.1

Qualifications:

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

n-Decane, n-Nonane

B062415-BS1

MADEP-VPH-04-1.1

Qualifications:

Soil/methanol ratio does not meet method specifications. Excess amount of soil. Sample was completely covered with methanol, but with less than the method-specified amount.

Analyte & Samples(s) Qualified:

12K0153-01[WS-26 (13-15)], 12K0153-02[WS-30 (13-15)], 12K0153-03[WS-31 (13-15)], 12K0153-04[Dup-1]

MADEP-EPH-04-1.1

SPE cartridge contamination with non-petroleum compounds, if present, is verified by GC/MS in each method blank per extraction batch and excluded from C11-C22 aromatic range fraction in all samples in the batch. No significant modifications were made to the method.

MADEP-VPH-04-1.1

No significant modifications were made to the method. All VPH samples were received preserved properly in methanol with a soil/methanol ratio of 1:1 +/- 25% completely covered by methanol in the proper containers specified on the chain-of-custody form unless specified in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-26 (13-15) | Sampled: 11/2/2012 12:00

Sample ID: 12K0153-01

Sample Matrix: Soil

Sample Flags: O-01

Soil/Methanol Preservation Ratio: 1.78

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	7.9	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
C5-C8 Aliphatics	ND	7.9	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Unadjusted C9-C12 Aliphatics	ND	7.9	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
C9-C12 Aliphatics	ND	7.9	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
C9-C10 Aromatics	ND	7.9	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Benzene	ND	0.039	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Ethylbenzene	ND	0.039	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.039	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Naphthalene	ND	0.20	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
Toluene	ND	0.039	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
m+p Xylene	ND	0.079	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH
o-Xylene	ND	0.039	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:11	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	96.8	70-130		11/9/12 0:11
2,5-Dibromotoluene (PID)	82.1	70-130		11/9/12 0:11

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-26 (13-15) | Sampled: 11/2/2012 12:00

Sample ID: 12K0153-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.3		% Wt	1		SM 2540G	11/6/12	11/7/12 8:06	RH

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-30 (13-15) | Sampled: 11/2/2012 13:15

Sample ID: 12K0153-02

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
C19-C36 Aliphatics	ND	23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Unadjusted C11-C22 Aromatics	ND	23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
C11-C22 Aromatics	ND	23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Acenaphthene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Acenaphthylene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Anthracene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Benzo(a)anthracene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Benzo(a)pyrene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Benzo(b)fluoranthene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Benzo(g,h,i)perylene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Benzo(k)fluoranthene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Chrysene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Dibenz(a,h)anthracene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Fluoranthene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Fluorene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Indeno(1,2,3-cd)pyrene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
2-Methylnaphthalene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Naphthalene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Phenanthrene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS
Pyrene	ND	0.23	mg/Kg dry	1		MADEP-EPH-04-1.1	11/12/12	11/12/12 16:18	SCS

Surrogates	% Recovery	Recovery Limits	Flag	
Chlorooctadecane (COD)	53.5	40-140		11/12/12 16:18
o-Terphenyl (OTP)	61.6	40-140		11/12/12 16:18
2-Bromonaphthalene	57.3	40-140		11/12/12 16:18
2-Fluorobiphenyl	77.8	40-140		11/12/12 16:18

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-30 (13-15) | Sampled: 11/2/2012 13:15

Sample ID: 12K0153-02

Sample Matrix: Soil

Sample Flags: O-01

Soil/Methanol Preservation Ratio: 1.63

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	9.1	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
C5-C8 Aliphatics	ND	9.1	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Unadjusted C9-C12 Aliphatics	ND	9.1	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
C9-C12 Aliphatics	ND	9.1	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
C9-C10 Aromatics	ND	9.1	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Benzene	ND	0.046	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Ethylbenzene	ND	0.046	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.046	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Naphthalene	ND	0.23	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
Toluene	ND	0.046	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
m+p Xylene	ND	0.091	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH
o-Xylene	ND	0.046	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 0:47	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	115	70-130		11/9/12 0:47
2,5-Dibromotoluene (PID)	98.4	70-130		11/9/12 0:47

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-30 (13-15) | Sampled: 11/2/2012 13:15

Sample ID: 12K0153-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	11/6/12	11/7/12 8:06	RH

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-31 (13-15) | Sampled: 11/2/2012 14:00

Sample ID: 12K0153-03

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
C19-C36 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Unadjusted C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Benzo(a)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Benzo(a)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Benzo(b)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Benzo(g,h,i)perylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Benzo(k)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Chrysene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Fluorene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Indeno(1,2,3-cd)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Phenanthrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS
Pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:31	SCS

Surrogates	% Recovery	Recovery Limits	Flag	
Chlorooctadecane (COD)	73.8	40-140		11/11/12 17:31
o-Terphenyl (OTP)	79.7	40-140		11/11/12 17:31
2-Bromonaphthalene	82.1	40-140		11/11/12 17:31
2-Fluorobiphenyl	90.5	40-140		11/11/12 17:31

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-31 (13-15) | Sampled: 11/2/2012 14:00

Sample ID: 12K0153-03

Sample Matrix: Soil

Sample Flags: O-01

Soil/Methanol Preservation Ratio: 1.69

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	8.6	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
C5-C8 Aliphatics	ND	8.6	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Unadjusted C9-C12 Aliphatics	ND	8.6	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
C9-C12 Aliphatics	ND	8.6	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
C9-C10 Aromatics	ND	8.6	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Benzene	ND	0.043	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Ethylbenzene	ND	0.043	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.043	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Naphthalene	ND	0.22	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
Toluene	ND	0.043	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
m+p Xylene	ND	0.086	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH
o-Xylene	ND	0.043	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 1:23	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	91.9	70-130		11/9/12 1:23
2,5-Dibromotoluene (PID)	79.4	70-130		11/9/12 1:23

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: WS-31 (13-15) | Sampled: 11/2/2012 14:00

Sample ID: 12K0153-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.4		% Wt	1		SM 2540G	11/6/12	11/7/12 8:06	RH

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: Dup-1 | Sampled: 11/2/2012 00:00

Sample ID: 12K0153-04

Sample Matrix: Soil

Petroleum Hydrocarbons Analyses - EPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
C9-C18 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
C19-C36 Aliphatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Unadjusted C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
C11-C22 Aromatics	ND	12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Acenaphthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Acenaphthylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Benzo(a)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Benzo(a)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Benzo(b)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Benzo(g,h,i)perylene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Benzo(k)fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Chrysene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Dibenz(a,h)anthracene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Fluoranthene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Fluorene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Indeno(1,2,3-cd)pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
2-Methylnaphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Naphthalene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Phenanthrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS
Pyrene	ND	0.12	mg/Kg dry	1		MADEP-EPH-04-1.1	11/8/12	11/11/12 17:51	SCS

Surrogates	% Recovery	Recovery Limits	Flag	
Chlorooctadecane (COD)	73.1	40-140		11/11/12 17:51
o-Terphenyl (OTP)	76.8	40-140		11/11/12 17:51
2-Bromonaphthalene	80.9	40-140		11/11/12 17:51
2-Fluorobiphenyl	89.5	40-140		11/11/12 17:51

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: Dup-1 | Sampled: 11/2/2012 00:00

Sample ID: 12K0153-04

Sample Matrix: Soil

Sample Flags: O-01

Soil/Methanol Preservation Ratio: 1.66

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	8.7	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
C5-C8 Aliphatics	ND	8.7	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Unadjusted C9-C12 Aliphatics	ND	8.7	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
C9-C12 Aliphatics	ND	8.7	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
C9-C10 Aromatics	ND	8.7	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Benzene	ND	0.044	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Ethylbenzene	ND	0.044	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.044	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Naphthalene	ND	0.22	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
Toluene	ND	0.044	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
m+p Xylene	ND	0.087	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH
o-Xylene	ND	0.044	mg/Kg dry	1		MADEP-VPH-04-1.1	11/8/12	11/9/12 2:00	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	116	70-130		11/9/12 2:00
2,5-Dibromotoluene (PID)	101	70-130		11/9/12 2:00

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

Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: Dup-1 | Sampled: 11/2/2012 00:00

Sample ID: 12K0153-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.5		% Wt	1		SM 2540G	11/6/12	11/7/12 8:06	RH

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Project Location: Union St., New Bedford | Sample Description: | Work Order: 12K0153

Date Received: 11/5/2012

Field Sample #: Trip Blank | Sampled: 11/2/2012 00:00

Sample ID: 12K0153-05

Sample Matrix: Trip Blank Soil

Petroleum Hydrocarbons Analyses - VPH

Soil/Methanol Preservation Ratio: 1.00

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
C5-C8 Aliphatics	ND	10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Unadjusted C9-C12 Aliphatics	ND	10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
C9-C12 Aliphatics	ND	10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
C9-C10 Aromatics	ND	10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Benzene	ND	0.050	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Ethylbenzene	ND	0.050	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Naphthalene	ND	0.25	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
Toluene	ND	0.050	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
m+p Xylene	ND	0.10	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH
o-Xylene	ND	0.050	mg/Kg wet	1		MADEP-VPH-04-1.1	11/8/12	11/8/12 23:35	EEH

Surrogates	% Recovery	Recovery Limits	Flag	
2,5-Dibromotoluene (FID)	115	70-130		11/8/12 23:35
2,5-Dibromotoluene (PID)	99.3	70-130		11/8/12 23:35

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Sample Extraction Data

Prep Method: SW-846 3546-MADEP-EPH-04-1.1

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
12K0153-03 [WS-31 (13-15)]	B062415	20.0	2.00	11/08/12
12K0153-04 [Dup-1]	B062415	20.2	2.00	11/08/12

Prep Method: SW-846 3546-MADEP-EPH-04-1.1

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
12K0153-02RE1 [WS-30 (13-15)]	B062641	10.3	2.00	11/12/12

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
12K0153-01 [WS-26 (13-15)]	B062464	26.7	18.4	11/08/12
12K0153-02 [WS-30 (13-15)]	B062464	24.4	18.8	11/08/12
12K0153-03 [WS-31 (13-15)]	B062464	25.4	18.7	11/08/12
12K0153-04 [Dup-1]	B062464	24.9	18.6	11/08/12
12K0153-05 [Trip Blank]	B062464	15.0	15.0	11/08/12

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
12K0153-01 [WS-26 (13-15)]	B062270	11/06/12
12K0153-02 [WS-30 (13-15)]	B062270	11/06/12
12K0153-03 [WS-31 (13-15)]	B062270	11/06/12
12K0153-04 [Dup-1]	B062270	11/06/12

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B062415 - SW-846 3546											
Blank (B062415-BLK1)				Prepared: 11/08/12 Analyzed: 11/11/12							
C9-C18 Aliphatics	ND	10	mg/Kg wet								
C19-C36 Aliphatics	ND	10	mg/Kg wet								
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet								
C11-C22 Aromatics	ND	10	mg/Kg wet								
Acenaphthene	ND	0.10	mg/Kg wet								
Acenaphthylene	ND	0.10	mg/Kg wet								
Anthracene	ND	0.10	mg/Kg wet								
Benzo(a)anthracene	ND	0.10	mg/Kg wet								
Benzo(a)pyrene	ND	0.10	mg/Kg wet								
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet								
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet								
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet								
Chrysene	ND	0.10	mg/Kg wet								
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet								
Fluoranthene	ND	0.10	mg/Kg wet								
Fluorene	ND	0.10	mg/Kg wet								
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet								
2-Methylnaphthalene	ND	0.10	mg/Kg wet								
Naphthalene	ND	0.10	mg/Kg wet								
Phenanthrene	ND	0.10	mg/Kg wet								
Pyrene	ND	0.10	mg/Kg wet								
Surrogate: Chlorooctadecane (COD)	*3.50*		mg/Kg wet	4.99		70.1		40-140			
Surrogate: o-Terphenyl (OTP)	*3.50*		mg/Kg wet	5.00		70.0		40-140			
Surrogate: 2-Bromonaphthalene	*3.77*		mg/Kg wet	5.00		75.4		40-140			
Surrogate: 2-Fluorobiphenyl	*4.06*		mg/Kg wet	5.00		81.1		40-140			
LCS (B062415-BS1)				Prepared: 11/08/12 Analyzed: 11/11/12							
Acenaphthene	3.10	0.10	mg/Kg wet	5.00		62.0		40-140			
Acenaphthylene	3.04	0.10	mg/Kg wet	5.00		60.8		40-140			
Anthracene	3.27	0.10	mg/Kg wet	5.00		65.5		40-140			
Benzo(a)anthracene	3.30	0.10	mg/Kg wet	5.00		66.0		40-140			
Benzo(a)pyrene	3.13	0.10	mg/Kg wet	5.00		62.5		40-140			
Benzo(b)fluoranthene	3.30	0.10	mg/Kg wet	5.00		65.9		40-140			
Benzo(g,h,i)perylene	3.53	0.10	mg/Kg wet	5.00		70.6		40-140			
Benzo(k)fluoranthene	3.28	0.10	mg/Kg wet	5.00		65.6		40-140			
Chrysene	3.12	0.10	mg/Kg wet	5.00		62.3		40-140			
Dibenz(a,h)anthracene	3.49	0.10	mg/Kg wet	5.00		69.9		40-140			
Fluoranthene	3.25	0.10	mg/Kg wet	5.00		65.0		40-140			
Fluorene	3.20	0.10	mg/Kg wet	5.00		64.0		40-140			
Indeno(1,2,3-cd)pyrene	3.48	0.10	mg/Kg wet	5.00		69.7		40-140			
2-Methylnaphthalene	2.90	0.10	mg/Kg wet	5.00		58.0		40-140			
Naphthalene	2.62	0.10	mg/Kg wet	5.00		52.5		40-140			
Phenanthrene	3.30	0.10	mg/Kg wet	5.00		66.0		40-140			
Pyrene	3.18	0.10	mg/Kg wet	5.00		63.5		40-140			
n-Decane	1.91	0.10	mg/Kg wet	5.00		**38.1**	*	40-140			L-07
n-Docosane	3.46	0.10	mg/Kg wet	5.00		69.2		40-140			
n-Dodecane	2.42	0.10	mg/Kg wet	5.00		48.5		40-140			
n-Eicosane	3.46	0.10	mg/Kg wet	5.00		69.3		40-140			
n-Hexacosane	3.43	0.10	mg/Kg wet	5.00		68.5		40-140			
n-Hexadecane	3.26	0.10	mg/Kg wet	5.00		65.3		40-140			
n-Hexatriacontane	3.40	0.10	mg/Kg wet	5.00		67.9		40-140			
n-Nonadecane	3.49	0.10	mg/Kg wet	5.00		69.7		40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B062415 - SW-846 3546											
LCS (B062415-BS1)				Prepared: 11/08/12 Analyzed: 11/11/12							
n-Nonane	1.34	0.10	mg/Kg wet	5.00		**26.7**	*	30-140			L-07
n-Octacosane	3.27	0.10	mg/Kg wet	5.00		65.4		40-140			
n-Octadecane	3.43	0.10	mg/Kg wet	5.00		68.6		40-140			
n-Tetracosane	3.49	0.10	mg/Kg wet	5.00		69.7		40-140			
n-Tetradecane	2.89	0.10	mg/Kg wet	5.00		57.7		40-140			
n-Triacontane	3.35	0.10	mg/Kg wet	5.00		67.0		40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00				0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00				0-5			
Surrogate: Chlorooctadecane (COD)	*3.43*		mg/Kg wet	4.99		68.7		40-140			
Surrogate: o-Terphenyl (OTP)	*3.37*		mg/Kg wet	5.00		67.5		40-140			
Surrogate: 2-Bromonaphthalene	*3.92*		mg/Kg wet	5.00		78.4		40-140			
Surrogate: 2-Fluorobiphenyl	*4.24*		mg/Kg wet	5.00		84.7		40-140			
LCS Dup (B062415-BSD1)				Prepared: 11/08/12 Analyzed: 11/11/12							
Acenaphthene	3.55	0.10	mg/Kg wet	5.00		71.0		40-140	13.5	25	
Acenaphthylene	3.52	0.10	mg/Kg wet	5.00		70.4		40-140	14.7	25	
Anthracene	3.72	0.10	mg/Kg wet	5.00		74.3		40-140	12.6	25	
Benzo(a)anthracene	3.76	0.10	mg/Kg wet	5.00		75.2		40-140	13.1	25	
Benzo(a)pyrene	3.57	0.10	mg/Kg wet	5.00		71.4		40-140	13.3	25	
Benzo(b)fluoranthene	3.74	0.10	mg/Kg wet	5.00		74.7		40-140	12.5	25	
Benzo(g,h,i)perylene	4.02	0.10	mg/Kg wet	5.00		80.3		40-140	12.9	25	
Benzo(k)fluoranthene	3.74	0.10	mg/Kg wet	5.00		74.7		40-140	13.0	25	
Chrysene	3.54	0.10	mg/Kg wet	5.00		70.9		40-140	12.9	25	
Dibenz(a,h)anthracene	4.06	0.10	mg/Kg wet	5.00		81.1		40-140	14.9	25	
Fluoranthene	3.69	0.10	mg/Kg wet	5.00		73.7		40-140	12.5	25	
Fluorene	3.67	0.10	mg/Kg wet	5.00		73.4		40-140	13.7	25	
Indeno(1,2,3-cd)pyrene	4.00	0.10	mg/Kg wet	5.00		80.0		40-140	13.8	25	
2-Methylnaphthalene	3.35	0.10	mg/Kg wet	5.00		66.9		40-140	14.3	25	
Naphthalene	3.01	0.10	mg/Kg wet	5.00		60.1		40-140	13.6	25	
Phenanthrene	3.74	0.10	mg/Kg wet	5.00		74.7		40-140	12.4	25	
Pyrene	3.60	0.10	mg/Kg wet	5.00		72.0		40-140	12.6	25	
n-Decane	2.37	0.10	mg/Kg wet	5.00		47.4		40-140	21.7	25	
n-Docosane	4.06	0.10	mg/Kg wet	5.00		81.2		40-140	15.9	25	
n-Dodecane	2.96	0.10	mg/Kg wet	5.00		59.2		40-140	20.0	25	
n-Eicosane	4.00	0.10	mg/Kg wet	5.00		80.1		40-140	14.5	25	
n-Hexacosane	3.93	0.10	mg/Kg wet	5.00		78.7		40-140	13.8	25	
n-Hexadecane	3.85	0.10	mg/Kg wet	5.00		77.0		40-140	16.5	25	
n-Hexatriacontane	3.87	0.10	mg/Kg wet	5.00		77.5		40-140	13.1	25	
n-Nonadecane	4.04	0.10	mg/Kg wet	5.00		80.8		40-140	14.7	25	
n-Nonane	1.70	0.10	mg/Kg wet	5.00		34.1		30-140	24.1	25	
n-Octacosane	3.76	0.10	mg/Kg wet	5.00		75.2		40-140	13.9	25	
n-Octadecane	4.00	0.10	mg/Kg wet	5.00		80.0		40-140	15.3	25	
n-Tetracosane	3.99	0.10	mg/Kg wet	5.00		79.8		40-140	13.5	25	
n-Tetradecane	3.50	0.10	mg/Kg wet	5.00		70.1		40-140	19.4	25	
n-Triacontane	3.84	0.10	mg/Kg wet	5.00		76.8		40-140	13.6	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00				0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00				0-5			
Surrogate: Chlorooctadecane (COD)	*3.76*		mg/Kg wet	4.99		75.4		40-140			
Surrogate: o-Terphenyl (OTP)	*3.59*		mg/Kg wet	5.00		71.8		40-140			
Surrogate: 2-Bromonaphthalene	*3.57*		mg/Kg wet	5.00		71.5		40-140			
Surrogate: 2-Fluorobiphenyl	*4.03*		mg/Kg wet	5.00		80.5		40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B062641 - SW-846 3546										
Blank (B062641-BLK1)				Prepared & Analyzed: 11/12/12						
C9-C18 Aliphatics	ND	10	mg/Kg wet							
C19-C36 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C11-C22 Aromatics	ND	10	mg/Kg wet							
C11-C22 Aromatics	ND	10	mg/Kg wet							
Acenaphthene	ND	0.10	mg/Kg wet							
Acenaphthylene	ND	0.10	mg/Kg wet							
Anthracene	ND	0.10	mg/Kg wet							
Benzo(a)anthracene	ND	0.10	mg/Kg wet							
Benzo(a)pyrene	ND	0.10	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.10	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.10	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.10	mg/Kg wet							
Chrysene	ND	0.10	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.10	mg/Kg wet							
Fluoranthene	ND	0.10	mg/Kg wet							
Fluorene	ND	0.10	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg wet							
2-Methylnaphthalene	ND	0.10	mg/Kg wet							
Naphthalene	ND	0.10	mg/Kg wet							
Phenanthrene	ND	0.10	mg/Kg wet							
Pyrene	ND	0.10	mg/Kg wet							
Surrogate: Chlorooctadecane (COD)	*3.31*		mg/Kg wet	4.99		66.4	40-140			
Surrogate: o-Terphenyl (OTP)	*3.49*		mg/Kg wet	5.00		69.7	40-140			
Surrogate: 2-Bromonaphthalene	*3.92*		mg/Kg wet	5.00		78.4	40-140			
Surrogate: 2-Fluorobiphenyl	*4.29*		mg/Kg wet	5.00		85.9	40-140			
LCS (B062641-BS1)				Prepared & Analyzed: 11/12/12						
Acenaphthene	3.29	0.10	mg/Kg wet	5.00		65.9	40-140			
Acenaphthylene	3.25	0.10	mg/Kg wet	5.00		65.0	40-140			
Anthracene	3.61	0.10	mg/Kg wet	5.00		72.2	40-140			
Benzo(a)anthracene	3.69	0.10	mg/Kg wet	5.00		73.8	40-140			
Benzo(a)pyrene	3.52	0.10	mg/Kg wet	5.00		70.4	40-140			
Benzo(b)fluoranthene	3.69	0.10	mg/Kg wet	5.00		73.9	40-140			
Benzo(g,h,i)perylene	3.95	0.10	mg/Kg wet	5.00		79.0	40-140			
Benzo(k)fluoranthene	3.65	0.10	mg/Kg wet	5.00		72.9	40-140			
Chrysene	3.46	0.10	mg/Kg wet	5.00		69.1	40-140			
Dibenz(a,h)anthracene	3.96	0.10	mg/Kg wet	5.00		79.3	40-140			
Fluoranthene	3.60	0.10	mg/Kg wet	5.00		72.0	40-140			
Fluorene	3.45	0.10	mg/Kg wet	5.00		69.0	40-140			
Indeno(1,2,3-cd)pyrene	3.94	0.10	mg/Kg wet	5.00		78.7	40-140			
2-Methylnaphthalene	3.06	0.10	mg/Kg wet	5.00		61.2	40-140			
Naphthalene	2.75	0.10	mg/Kg wet	5.00		55.0	40-140			
Phenanthrene	3.59	0.10	mg/Kg wet	5.00		71.7	40-140			
Pyrene	3.52	0.10	mg/Kg wet	5.00		70.4	40-140			
n-Decane	2.34	0.10	mg/Kg wet	5.00		46.9	40-140			
n-Docosane	3.88	0.10	mg/Kg wet	5.00		77.6	40-140			
n-Dodecane	2.86	0.10	mg/Kg wet	5.00		57.2	40-140			
n-Eicosane	3.81	0.10	mg/Kg wet	5.00		76.2	40-140			
n-Hexacosane	3.77	0.10	mg/Kg wet	5.00		75.4	40-140			
n-Hexadecane	3.58	0.10	mg/Kg wet	5.00		71.7	40-140			
n-Hexatriacontane	3.79	0.10	mg/Kg wet	5.00		75.9	40-140			
n-Nonadecane	3.82	0.10	mg/Kg wet	5.00		76.4	40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - EPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B062641 - SW-846 3546										
LCS (B062641-BS1)				Prepared & Analyzed: 11/12/12						
n-Nonane	1.77	0.10	mg/Kg wet	5.00		35.4	30-140			
n-Octacosane	3.62	0.10	mg/Kg wet	5.00		72.3	40-140			
n-Octadecane	3.78	0.10	mg/Kg wet	5.00		75.5	40-140			
n-Tetracosane	3.83	0.10	mg/Kg wet	5.00		76.7	40-140			
n-Tetradecane	3.30	0.10	mg/Kg wet	5.00		65.9	40-140			
n-Triacontane	3.71	0.10	mg/Kg wet	5.00		74.2	40-140			
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	*3.59*		mg/Kg wet	4.99		72.0	40-140			
Surrogate: o-Terphenyl (OTP)	*3.51*		mg/Kg wet	5.00		70.3	40-140			
Surrogate: 2-Bromonaphthalene	*3.52*		mg/Kg wet	5.00		70.5	40-140			
Surrogate: 2-Fluorobiphenyl	*3.99*		mg/Kg wet	5.00		79.8	40-140			
LCS Dup (B062641-BSD1)				Prepared & Analyzed: 11/12/12						
Acenaphthene	3.42	0.10	mg/Kg wet	5.00		68.5	40-140	3.86	25	
Acenaphthylene	3.37	0.10	mg/Kg wet	5.00		67.3	40-140	3.60	25	
Anthracene	3.83	0.10	mg/Kg wet	5.00		76.5	40-140	5.75	25	
Benzo(a)anthracene	3.92	0.10	mg/Kg wet	5.00		78.5	40-140	6.07	25	
Benzo(a)pyrene	3.73	0.10	mg/Kg wet	5.00		74.6	40-140	5.82	25	
Benzo(b)fluoranthene	3.91	0.10	mg/Kg wet	5.00		78.3	40-140	5.78	25	
Benzo(g,h,i)perylene	4.18	0.10	mg/Kg wet	5.00		83.6	40-140	5.72	25	
Benzo(k)fluoranthene	3.87	0.10	mg/Kg wet	5.00		77.4	40-140	5.96	25	
Chrysene	3.66	0.10	mg/Kg wet	5.00		73.3	40-140	5.80	25	
Dibenz(a,h)anthracene	4.23	0.10	mg/Kg wet	5.00		84.5	40-140	6.40	25	
Fluoranthene	3.84	0.10	mg/Kg wet	5.00		76.8	40-140	6.54	25	
Fluorene	3.61	0.10	mg/Kg wet	5.00		72.2	40-140	4.52	25	
Indeno(1,2,3-cd)pyrene	4.18	0.10	mg/Kg wet	5.00		83.7	40-140	6.10	25	
2-Methylnaphthalene	3.19	0.10	mg/Kg wet	5.00		63.8	40-140	4.19	25	
Naphthalene	2.87	0.10	mg/Kg wet	5.00		57.4	40-140	4.31	25	
Phenanthrene	3.79	0.10	mg/Kg wet	5.00		75.7	40-140	5.39	25	
Pyrene	3.76	0.10	mg/Kg wet	5.00		75.1	40-140	6.48	25	
n-Decane	2.27	0.10	mg/Kg wet	5.00		45.5	40-140	3.10	25	
n-Docosane	4.00	0.10	mg/Kg wet	5.00		79.9	40-140	3.01	25	
n-Dodecane	2.82	0.10	mg/Kg wet	5.00		56.3	40-140	1.57	25	
n-Eicosane	3.92	0.10	mg/Kg wet	5.00		78.4	40-140	2.88	25	
n-Hexacosane	3.89	0.10	mg/Kg wet	5.00		77.7	40-140	3.03	25	
n-Hexadecane	3.66	0.10	mg/Kg wet	5.00		73.2	40-140	2.18	25	
n-Hexatriacontane	3.88	0.10	mg/Kg wet	5.00		77.6	40-140	2.23	25	
n-Nonadecane	3.94	0.10	mg/Kg wet	5.00		78.9	40-140	3.17	25	
n-Nonane	1.67	0.10	mg/Kg wet	5.00		33.4	30-140	5.73	25	
n-Octacosane	3.72	0.10	mg/Kg wet	5.00		74.3	40-140	2.70	25	
n-Octadecane	3.88	0.10	mg/Kg wet	5.00		77.5	40-140	2.62	25	
n-Tetracosane	3.94	0.10	mg/Kg wet	5.00		78.7	40-140	2.65	25	
n-Tetradecane	3.25	0.10	mg/Kg wet	5.00		65.0	40-140	1.44	25	
n-Triacontane	3.80	0.10	mg/Kg wet	5.00		76.1	40-140	2.56	25	
Naphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
2-Methylnaphthalene-aliphatic fraction	ND	0.10	mg/Kg wet	5.00			0-5			
Surrogate: Chlorooctadecane (COD)	*3.65*		mg/Kg wet	4.99		73.2	40-140			
Surrogate: o-Terphenyl (OTP)	*3.68*		mg/Kg wet	5.00		73.6	40-140			
Surrogate: 2-Bromonaphthalene	*3.42*		mg/Kg wet	5.00		68.4	40-140			
Surrogate: 2-Fluorobiphenyl	*3.88*		mg/Kg wet	5.00		77.6	40-140			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B062464 - MA VPH										
Blank (B062464-BLK1)				Prepared & Analyzed: 11/08/12						
Unadjusted C5-C8 Aliphatics	ND	10	mg/Kg wet							
C5-C8 Aliphatics	ND	10	mg/Kg wet							
Unadjusted C9-C12 Aliphatics	ND	10	mg/Kg wet							
C9-C12 Aliphatics	ND	10	mg/Kg wet							
C9-C10 Aromatics	ND	10	mg/Kg wet							
Benzene	ND	0.050	mg/Kg wet							
Ethylbenzene	ND	0.050	mg/Kg wet							
Methyl tert-Butyl Ether (MTBE)	ND	0.050	mg/Kg wet							
Naphthalene	ND	0.25	mg/Kg wet							
Toluene	ND	0.050	mg/Kg wet							
m+p Xylene	ND	0.10	mg/Kg wet							
o-Xylene	ND	0.050	mg/Kg wet							
Surrogate: 2,5-Dibromotoluene (FID)	*0.0424*		mg/Kg wet	0.0400		106	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*0.0366*		mg/Kg wet	0.0400		91.6	70-130			
LCS (B062464-BS1)				Prepared & Analyzed: 11/08/12						
Benzene	0.0849	0.0010	mg/Kg wet	0.100		84.9	70-130			
Butylcyclohexane	0.0878	0.0010	mg/Kg wet	0.100		87.8	70-130			
Decane	0.0959	0.0010	mg/Kg wet	0.100		95.9	70-130			
Ethylbenzene	0.0834	0.0010	mg/Kg wet	0.100		83.4	70-130			
Methyl tert-Butyl Ether (MTBE)	0.0839	0.0010	mg/Kg wet	0.100		83.9	70-130			
2-Methylpentane	0.0969	0.0010	mg/Kg wet	0.100		96.9	70-130			
Naphthalene	0.0959	0.0050	mg/Kg wet	0.100		95.9	70-130			
Nonane	0.0866	0.0010	mg/Kg wet	0.100		86.6	30-130			
Pentane	0.102	0.0010	mg/Kg wet	0.100		102	70-130			
Toluene	0.0846	0.0010	mg/Kg wet	0.100		84.6	70-130			
1,2,4-Trimethylbenzene	0.0822	0.0010	mg/Kg wet	0.100		82.2	70-130			
2,2,4-Trimethylpentane	0.0904	0.0010	mg/Kg wet	0.100		90.4	70-130			
m+p Xylene	0.166	0.0020	mg/Kg wet	0.200		82.8	70-130			
o-Xylene	0.0835	0.0010	mg/Kg wet	0.100		83.5	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*0.0446*		mg/Kg wet	0.0400		112	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*0.0365*		mg/Kg wet	0.0400		91.1	70-130			
LCS Dup (B062464-BSD1)				Prepared & Analyzed: 11/08/12						
Benzene	0.0837	0.0010	mg/Kg wet	0.100		83.7	70-130	1.42	25	
Butylcyclohexane	0.0857	0.0010	mg/Kg wet	0.100		85.7	70-130	2.44	25	
Decane	0.0951	0.0010	mg/Kg wet	0.100		95.1	70-130	0.770	25	
Ethylbenzene	0.0826	0.0010	mg/Kg wet	0.100		82.6	70-130	0.888	25	
Methyl tert-Butyl Ether (MTBE)	0.0781	0.0010	mg/Kg wet	0.100		78.1	70-130	7.22	25	
2-Methylpentane	0.0939	0.0010	mg/Kg wet	0.100		93.9	70-130	3.20	25	
Naphthalene	0.0819	0.0050	mg/Kg wet	0.100		81.9	70-130	15.8	25	
Nonane	0.0857	0.0010	mg/Kg wet	0.100		85.7	30-130	1.03	25	
Pentane	0.0993	0.0010	mg/Kg wet	0.100		99.3	70-130	2.79	25	
Toluene	0.0838	0.0010	mg/Kg wet	0.100		83.8	70-130	0.931	25	
1,2,4-Trimethylbenzene	0.0816	0.0010	mg/Kg wet	0.100		81.6	70-130	0.689	25	
2,2,4-Trimethylpentane	0.0877	0.0010	mg/Kg wet	0.100		87.7	70-130	3.00	25	
m+p Xylene	0.165	0.0020	mg/Kg wet	0.200		82.4	70-130	0.497	25	
o-Xylene	0.0832	0.0010	mg/Kg wet	0.100		83.2	70-130	0.389	25	
Surrogate: 2,5-Dibromotoluene (FID)	*0.0370*		mg/Kg wet	0.0400		92.5	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*0.0319*		mg/Kg wet	0.0400		79.8	70-130			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B062270 - % Solids										
Duplicate (B062270-DUP1)	**Source: 12K0153-01**		Prepared: 11/06/12 Analyzed: 11/07/12							
% Solids	87.6		% Wt		87.3			0.343	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
O-01	Soil/methanol ratio does not meet method specifications. Excess amount of soil. Sample was completely covered with methanol, but with less than the method-specified amount.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
MADEP-EPH-04-1.1 in Soil	
C9-C18 Aliphatics	CT,NC,WA,ME
C19-C36 Aliphatics	CT,NC,WA,ME
Unadjusted C11-C22 Aromatics	CT,NC,WA,ME
C11-C22 Aromatics	CT,NC,WA,ME
Acenaphthene	CT,NC,WA,ME
Acenaphthylene	CT,NC,WA,ME
Anthracene	CT,NC,WA,ME
Benzo(a)anthracene	CT,NC,WA,ME
Benzo(a)pyrene	CT,NC,WA,ME
Benzo(b)fluoranthene	CT,NC,WA,ME
Benzo(g,h,i)perylene	CT,NC,WA,ME
Benzo(k)fluoranthene	CT,NC,WA,ME
Chrysene	CT,NC,WA,ME
Dibenz(a,h)anthracene	CT,NC,WA,ME
Fluoranthene	CT,NC,WA,ME
Fluorene	CT,NC,WA,ME
Indeno(1,2,3-cd)pyrene	CT,NC,WA,ME
2-Methylnaphthalene	CT,NC,WA,ME
Naphthalene	CT,NC,WA,ME
Phenanthrene	CT,NC,WA,ME
Pyrene	CT,NC,WA,ME
MADEP-VPH-04-1.1 in Soil	
Unadjusted C5-C8 Aliphatics	CT,NC,WA,ME
C5-C8 Aliphatics	CT,NC,WA,ME
Unadjusted C9-C12 Aliphatics	CT,NC,WA,ME
C9-C12 Aliphatics	CT,NC,WA,ME
C9-C10 Aromatics	CT,NC,WA,ME
Benzene	CT,NC,WA,ME
Ethylbenzene	CT,NC,WA,ME
Methyl tert-Butyl Ether (MTBE)	CT,NC,WA,ME
Naphthalene	CT,NC,WA,ME
Toluene	CT,NC,WA,ME
m+p Xylene	CT,NC,WA,ME
o-Xylene	CT,NC,WA,ME

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

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2013
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2013
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2013
RI	Rhode Island Department of Health	LAO00112	12/30/2012
NC	North Carolina Div. of Water Quality	652	12/31/2012
NJ	New Jersey DEP	MA007 NELAP	06/30/2013
FL	Florida Department of Health	E871027 NELAP	06/30/2013
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2013
WA	State of Washington Department of Ecology	C2065	02/23/2013
ME	State of Maine	2011028	06/9/2013
VA	Commonwealth of Virginia	1381	12/14/2012

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

CHAIN OF CUSTODY RECORD

12K0153

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Page ____ of ____

Company Name: WESTON & SAMPSON
Telephone: 1800 SAMPSON
Address: 100 FOXBORO BLVD. FOXBOROUGH, MA
Project #
Client PO#
Attention: SEAN HEALEY
Project Location: UNION ST NEW BEDFORD
Sampled By: PADRAIC KAVANAGH

DATA DELIVERY (check all that apply)
○ FAX ○ EMAIL ○ WEBSITE
Fax #
Email:
Format: ○ PDF ○ EXCEL ○ GIS ○ OTHER ____ ○ "Enhanced Data Package"

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

# of Containers: 1 | 1
** Preservation
***Container Code

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	EPH w/ PAHS	VPH w/ VOCS
01	WS-26 (13-15)	11/02	12:00						X
02	WS-30 (13-15)	|	13:15					X	X
03	WS-31 (13-15)	|	14:00					|	|
04	Dup-1	|						|	|
05	TRIP BLANK								X

Dissolved Metals
○ Field Filtered
○ Lab to Filter

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

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

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

Comments: PLEASE CALL SEAN TO CONFIRM

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Signature	Date/Time
Relinquished by: (signature) [signature]	11/5 11:18
Received by: (signature) [signature]	11/5/12 1118
Relinquished by: (signature) [signature]	11/5/12 1845
Received by: (signature) [signature]	11-5-12 1846

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

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

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

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

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

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East Longmeadow, MA. 01028
P: 413-525-2332
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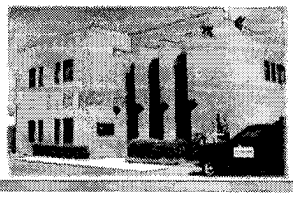
www.contestlabs.com

con-test® ANALYTICAL LABORATORY



Sample Receipt Checklist

CLIENT NAME: Weston & Sampson **RECEIVED BY:** WF **DATE:** 11-5-12

1) **Was the chain(s) of custody relinquished and signed?** **Yes** No **No CoC Included**

2) **Does the chain agree with the samples?** **Yes** No
If not, explain:

3) **Are all the samples in good condition?** **Yes** No
If not, explain:

4) **How were the samples received:**
On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** No **N/A**

Temperature °C by Temp blank _____ Temperature °C by Temp gun 2.9

5) **Are there Dissolved samples for the lab to filter?** Yes **No**
Who was notified _____ Date _____ Time _____

6) **Are there any RUSH or SHORT HOLDING TIME samples?** Yes **No**
Who was notified _____ Date _____ Time _____

7) **Location where samples are stored:** 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

8) **Do all samples have the proper Acid pH:** Yes No **N/A** _____

9) **Do all samples have the proper Base pH:** Yes No **N/A** _____

10) **Was the PC notified of any discrepancies with the CoC vs the samples:** Yes No N/A

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	3	2 oz amber/clear jar	1
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below	5	PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol 5
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 12K0153
Project Location: Union St., New Bedford	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

12K0153-01 thru 12K0153-05

Matrices: Soil

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A (X)	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A (X)	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☑ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

<u>Data User Note:</u> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 11/12/12