



VIA ELECTRONIC MAIL

April 6, 2011

Mr. Kurt Kochan
Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, Virginia, 22193

**RE: First Quarter 2011 Post Site Characterization Monitoring Report
Fairfax Facility # 26140
9901 Georgetown Pike
Great Falls, Fairfax County, Virginia
PC# 2010-3028**

Dear Mr. Kochan:

Kleinfelder, on behalf of Fairfax Petroleum Realty, LLC (Fairfax), is submitting this Post Site Characterization Monitoring Report (PSCR) for the above-referenced facility. This report includes a summary of the installation of one off-site bedrock monitoring well and groundwater sampling of the monitoring well network.

Please feel free to contact us at (410) 850-0404 should you have questions.

Sincerely,
Kleinfelder East, Inc.

A handwritten signature in black ink that reads "Charlie Low".

Charlie Low
Environmental Scientist

A handwritten signature in black ink that reads "Mark C. Steele".

Mark C. Steele
Senior Project Manager

Attachment

cc: Mr. Tom Wright – Fairfax Petroleum Realty, LLC



**FIRST QUARTER 2011
POST SITE CHARACTERIZATION MONITORING REPORT
Fairfax Petroleum Facility # 26140
9901 Georgetown Pike
Great Falls, Fairfax County, Virginia**

REGULATORY INFORMATION

Regulatory Agency:	Virginia Department of Environmental Quality (VADEQ)
Agency Contact:	Mr. Kurt Kochan
Pollution Complaint No.:	2010-3028
Current Case Status:	Post Site Characterization Monitoring
Reporting Period:	January 1, 2011 through March 31, 2011
Last Report:	Fourth Quarter 2010 Post Site Characterization Monitoring Report, February 2011

GENERAL SITE INFORMATION

Fairfax Petroleum Realty Contact:	Mr. Tom Wright
Consultant Contact:	Mr. Mark C. Steele
Facility Status:	Active branded Exxon retail service station with auto repair facilities.
Area Property Use:	See Area Map (Figure 1)
Monitoring Wells:	MW-1 through MW-3, MW-5, MW-6S, MW-6D, MW-7 through MW-12, and PW-1
Site Geology:	Silts and sands underlain by structured saprolite and schist
Surficial Groundwater Flow Direction:	Southeast

ACTIVITIES COMPLETED THIS PERIOD

January 10, 11 and 13, 2011 – Monitoring Well Installation

On January 10, 11 and 13, 2011, Kleinfelder personnel oversaw the advancement of MW-12 to a total depth of 160 feet below grade. Drilling was completed by Connelly and Associates of Frederick, Maryland using an air-rotary drill rig. The well location is depicted on **Figure 1** and a copy of the boring and well construction log is included as **Appendix A**.

During drilling activities, competent schist bedrock was encountered at approximately 95 feet below grade. Following completion of drilling, a monitoring well was installed using 6-inch diameter steel casing set from grade to 100 feet below grade. The annular space from approximately six inches below grade to 100 feet below grade was sealed with Portland cement/bentonite grout. The remainder of the boring (from 100 feet to 160 feet below grade) is an open borehole set within the bedrock. A locking well cap and watertight manhole cover was installed to protect the wellhead. The well construction diagram is included in **Appendix A**.

Soil samples were collected at least every ten feet from grade to bedrock (encountered at approximately 95 feet below grade). The soil samples collected during drilling were examined for lithologic content and field screened for volatile organic compounds (VOCs) using a calibrated photoionization detector (PID). The PID readings did not exceed 0.0 parts per million volume (ppmv) and are depicted on the boring log (**Appendix A**). A soil sample was collected from cuttings obtained from 45 feet below grade, the depth at which moist soil was first encountered. The sample was submitted under chain-of-custody protocol to Lancaster Laboratories for analysis of benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tert butyl ether (MTBE) using Environmental Protection Agency (EPA) Method 8260B and total petroleum hydrocarbon – gasoline range organics (TPH-GRO) and total petroleum hydrocarbon – diesel range organics (TPH-DRO) using EPA Method 8015B.

A review of the analytical results obtained from the soil collected during the installation of MW-12 indicates that BTEX, MTBE, TPH-GRO and TPH-DRO were not detected above laboratory detection limits. The Lancaster Laboratory Analytical Report is included as **Appendix B**.

Twelve 55-gallon steel Department of Transportation (DOT) drums of soil cuttings were generated during the January 2011 installation of MW-12 and were transported to the RECO Biotechnology disposal facility in Richmond, Virginia. The non-hazardous waste manifest for the disposal of the soil cuttings is included as **Appendix C**.

February 17 and 18, 2011 – Groundwater Gauging/Sampling

Wells Gauged and Sampled:	MW-1, MW-2, MW-5, MW-6S, MW-6D (3 intervals), MW-7 through MW-11, MW-12 (2 intervals), and PW-1 (3 intervals)
Well Gauged Only:	MW-3
Liquid Phase Hydrocarbon:	None detected
Minimum/Maximum Depth to Water:	23.02 (MW-6S) / 37.13 (PW-1) feet
Hydraulic Gradient:	0.022 ft/ft between MW-5 and MW-8
Groundwater Flow Direction:	Southeast

On February 17 and 18, 2010, Kleinfelder personnel completed groundwater sampling activities at the site. Monitoring well MW-3 was dry; therefore, a sample was not collected. As requested by the VADEQ in the December 10, 2009 directive letter, monitoring wells MW-6D and PW-1 (the former station potable well) were each sampled at three different intervals (65 feet, 85 feet and 105 feet below grade) and the newly installed MW-12 was sampled at two different intervals (110 and 153 feet below grade) using low-flow technology.

The groundwater sampling intervals in MW-12 are based on the approximate depths of apparent fractures in bedrock as identified during drilling activities. During low-flow groundwater sampling activities, water quality data was obtained from the above-mentioned wells. Upon observing stabilized parameters, samples were collected and submitted for laboratory analysis as detailed above. The December 10, 2009 VADEQ letter is attached as **Appendix D**.

Groundwater samples were submitted under chain of custody protocol to Lancaster Laboratories of Lancaster, Pennsylvania for analysis of BTEX and MTBE using EPA Method 8260B and TPH-GRO using EPA Method 8015B. Groundwater monitoring and analytical data is summarized in **Table 1** and depicted on **Figure 2**. The Lancaster Laboratory Analytical Report is attached as **Appendix E**.

On February 17, 2011, the vertical elevations of the top of casing (TOC) for the former on-site potable well (PW-1) and MW-12 were measured with standard surveying equipment. Elevations were measured in relation to the existing well network, with all depth to water measurements calculated to determine a relative groundwater elevation surface for the Site.

LIMITATIONS

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

FIGURES AND TABLE:

- Figure 1: Local Area Map (March 2, 2011)
- Figure 2: Hydrocarbon Distribution / Groundwater Contour Map
(February 17 & 18, 2011)

- Table 1: Groundwater Monitoring & Analytical Data

APPENDICES:

- Appendix A: Soil Boring and Monitoring Well Construction Log
- Appendix B: Soil Laboratory Analysis Report
- Appendix C: Non-Hazardous Waste Manifest
- Appendix D: VADEQ Directive Letter (December 10, 2009)
- Appendix E: Groundwater Laboratory Analysis Reports
(February 17 and 18, 2011)

Prepared By:
Kleinfelder East, Inc.



Charlie Low
Environmental Scientist



Mark C. Steele
Senior Project Manager

FIGURES

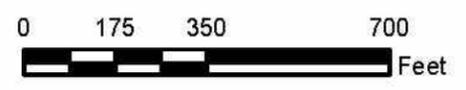
Legend

-  Site Location
-  Offsite Well
-  1500-ft Site Radius



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The information on this map was compiled from a variety of sources and is subject to change without notice. Kleinfielder does not warrant, express or implied, as to accuracy, completeness, timeliness, or reliability of the information. This document is not to be used for legal or professional purposes. The information contained on this map is provided as a service to the party who ordered the information.




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PROJECT NO.	114992
DRAWN:	03/02/11
DRAWN BY:	BNM
CHECKED BY:	MCS
FILE NAME:	26140_LAM_022210.mxd

**LOCAL AREA MAP with
OFFSITE WELL LOCATIONS**

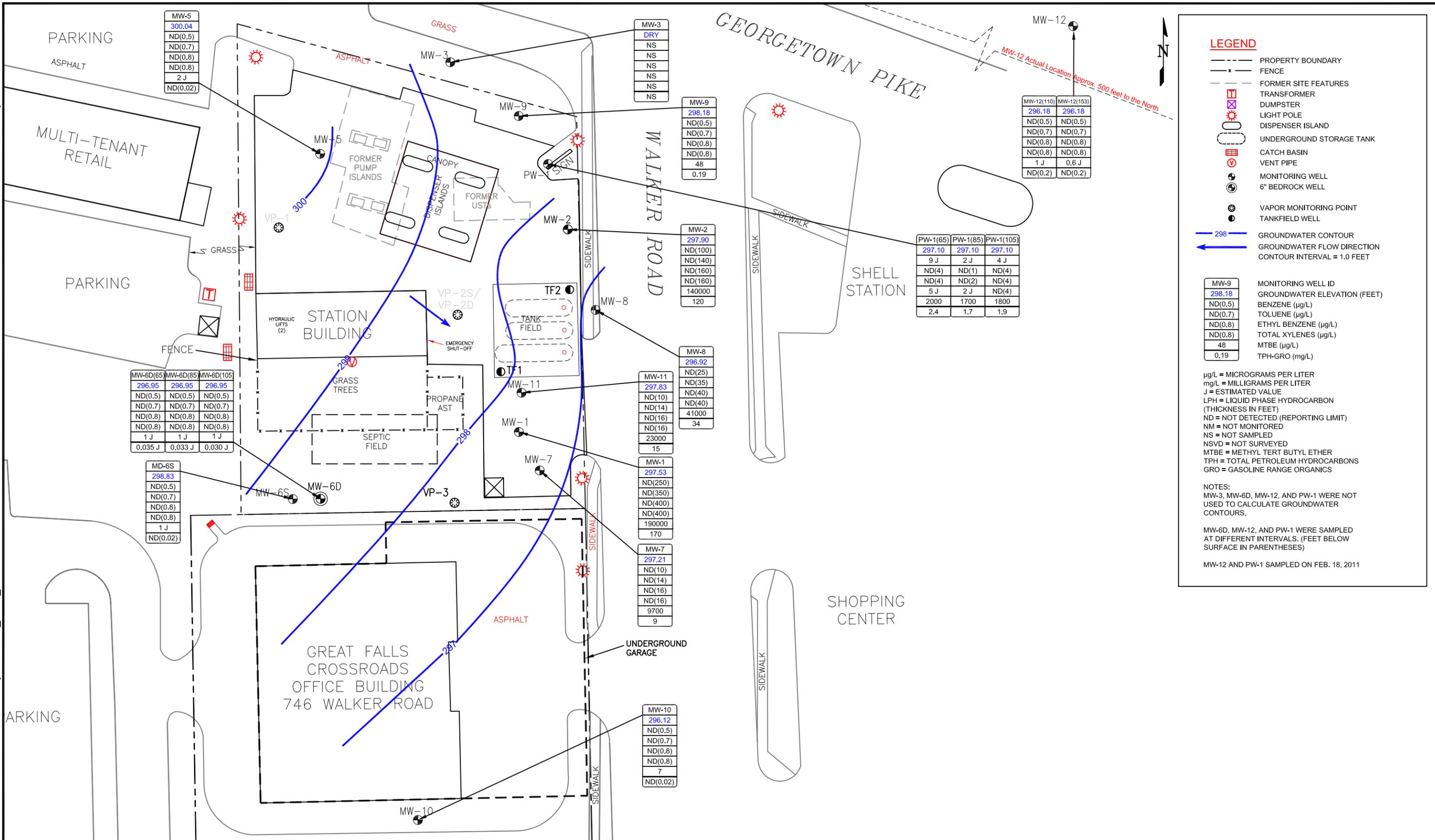
FAIRFAX PETROLEUM REALTY FACILITY # 26140
9901 GEORGETOWN PIKE
GREAT FALLS, VIRGINIA

FIGURE
1

PLOTTED: 29 Mar 2011, 9:55am, BMyers

CAD FILE: G:\Projects\26140_Great_Falls\CAD LAYOUT: B-40-SITE MAP

HANOVER, MD



The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.



 www.kleinfelder.com	PROJECT NO. 114992	HYDROCARBON DISTRIBUTION/ GROUNDWATER CONTOUR MAP FEBURARY 17-18, 2011	FIGURE 2
	DRAWN: 03/29/11		
	DRAWN BY: BNM		
	CHECKED BY: MCS		
FILE NAME: 26140_HDMap_072610.dwg	FAIRFAX PETROLEUM REALTY FACILITY #26140 9901 GEORGETOWN PIKE GREAT FALLS, VIRGINIA		

TABLE

TABLE 1

Groundwater Monitoring & Analytical Data

Fairfax Facility #26140

9901 Georgetown Pike

Great Falls, VA

July 24, 2009 through February 18, 2011

Sample ID	Date	Gauging Data					Analytical Data						
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Methyl Tertiary Butyl Ether (µg/L)	TPH-GRO (mg/L)
MW-1	7/24/2009	100.00	30.45	ND	ND	69.55	13.3	<1.0	0.53	ND	13.8	193,000	105
	8/18/2009	328.99	NM	NM	NM	NM	ND (200)	ND (200)	ND (200)	ND (200)	BRL	138,000	65.7
	10/15/2009	328.99	31.88	ND	ND	297.11	ND (250)	ND (250)	ND (250)	ND (250)	BRL	139,000	125
	6/22/2010	328.99	28.65	ND	ND	300.34	ND (5)	ND (7)	ND (8)	ND (8)	BRL	13,000	14
	9/30/2010	328.99	31.11	ND	ND	297.88	ND (50)	ND (70)	ND (80)	110 J	110	240,000	170
	12/16/2010	328.99	30.93	ND	ND	298.06	ND (100)	ND (140)	ND (160)	ND (160)	BRL	220,000	150
2/17/2011	328.99	31.46	ND	ND	297.53	ND (250)	ND (350)	ND (400)	ND (400)	BRL	190,000	170	
MW-2	7/24/2009	102.90	33.19	ND	ND	69.71	70.2	8	1	ND	79.2	107,000	59
	8/18/2009	332.05	NM	NM	NM	NM	ND (100)	ND (100)	ND (100)	ND (100)	BRL	87,100	53.9
	10/15/2009	332.05	34.41	ND	ND	297.64	ND (250)	ND (250)	ND (250)	ND (250)	BRL	122,000	117
	7/1/2010	332.05	31.63	ND	ND	300.42	ND (100)	91.3 J	ND (100)	ND (100)	91.3	52,400	42.7
	9/30/2010	332.05	32.96	ND	ND	299.09	ND (25)	ND (35)	ND (40)	ND (40)	BRL	37,000	27
	12/16/2010	332.05	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS
2/17/2011	332.05	34.15	ND	ND	297.90	ND (100)	ND (140)	ND (160)	ND (160)	BRL	140,000	120	
MW-3	7/24/2009	104.99	33.67	ND	ND	71.32	<0.50	<1.0	<1.0	ND	BRL	5.7	NA
	10/15/2009	333.98	34.51	ND	ND	299.47	NS	NS	NS	NS	NS	NS	NS
	7/1/2010	333.98	32.39	ND	ND	301.59	ND (2)	ND (2)	ND (2)	ND (2)	BRL	1.9 J	0.499
	9/30/2010	333.98	DRY	DRY	DRY	NM	NS	NS	NS	NS	NS	NS	NS
	12/16/2010	333.98	DRY	DRY	DRY	NM	NS	NS	NS	NS	NS	NS	NS
	2/17/2011	333.98	DRY	DRY	DRY	NM	NS	NS	NS	NS	NS	NS	NS
MW-5	7/24/2009	103.43	30.72	ND	ND	72.71	<0.50	<1.0	<1.0	ND	BRL	1.3	NA
	8/18/2009	332.35	NM	NM	NM	NM	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	0.48 J	ND (0.20)
	10/15/2009	332.35	32.51	ND	ND	299.84	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	11.4	ND (0.20)
	6/22/2010	332.35	29.40	ND	ND	302.95	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	9/30/2010	332.35	32.30	ND	ND	300.05	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	12/16/2010	332.35	32.12	ND	ND	300.23	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	12	ND (0.02)
2/17/2011	332.35	32.31	ND	ND	300.04	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	2 J	ND (0.02)	
MW-6D (65)	6/22/2010	323.09	26.69	ND	ND	296.40	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	9/30/2010	323.09	26.25	ND	ND	296.84	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	12/16/2010	323.09	25.92	ND	ND	297.17	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.024 J
	2/17/2011	323.09	26.14	ND	ND	296.95	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.035 J
MW-6D (75)	9/24/2009	323.09	NM	NM	NM	NM	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	3	NA
	10/15/2009	323.09	26.69	ND	ND	296.40	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	3	ND (0.20)

TABLE 1

Groundwater Monitoring & Analytical Data

Fairfax Facility #26140

9901 Georgetown Pike

Great Falls, VA

July 24, 2009 through February 18, 2011

Sample ID	Date	Gauging Data					Analytical Data						
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Methyl Tertiary Butyl Ether (µg/L)	TPH-GRO (mg/L)
MW-6D (85)	6/22/2010	323.09	26.69	ND	ND	296.40	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.023 J
	9/30/2010	323.09	26.25	ND	ND	296.84	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	12/16/2010	323.09	25.92	ND	ND	297.17	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	6	0.023 J
	2/17/2011	323.09	26.14	ND	ND	296.95	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.033 J
MW-6D (105)	6/22/2010	323.09	26.69	ND	ND	296.40	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	2 J	0.023 J
	9/30/2010	323.09	26.25	ND	ND	296.84	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.021 J
	12/16/2010	323.09	25.92	ND	ND	297.17	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.021 J
	2/17/2011	323.09	26.14	ND	ND	296.95	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	0.030 J
MW-6D (110)	9/24/2009	323.09	NM	NM	NM	NM	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	3	NA
	10/15/2009	323.09	26.69	ND	ND	296.40	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	3	ND (0.20)
MW-6S	9/24/2009	321.85	NM	NM	NM	NM	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	2.8	NA
	10/15/2009	321.85	23.35	ND	ND	298.50	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	3.1	ND (0.20)
	6/22/2010	321.85	20.22	ND	ND	301.63	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	2 J	ND (0.02)
	9/30/2010	321.85	23.00	ND	ND	298.85	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	0.9 J	ND (0.02)
	12/16/2010	321.85	22.82	ND	ND	299.03	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
	2/17/2011	321.85	23.02	ND	ND	298.83	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.02)
MW-7	10/15/2009	327.96	31.21	ND	ND	296.75	3.3 J	ND (10)	ND (10)	ND (10)	3.3	4,720	10.5
	6/22/2010	327.96	28.00	ND	ND	299.96	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	87	0.23
	9/30/2010	327.96	30.24	ND	ND	297.72	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	ND (0.5)	ND (0.02)
	12/16/2010	327.96	30.15	ND	ND	297.81	2 J	ND (1)	ND (2)	ND (2)	2	2,100	1.8
	2/17/2011	327.96	30.75	ND	ND	297.21	ND (10)	ND (14)	ND (16)	ND (16)	BRL	9,700	9
MW-8	10/15/2009	330.54	34.01	ND	ND	296.53	ND (500)	ND (500)	ND (500)	ND (500)	BRL	226,000	207
	6/22/2010	330.54	30.91	ND	ND	299.63	ND (5)	ND (7)	ND (8)	ND (8)	BRL	15,000	14
	9/30/2010	330.54	32.97	ND	ND	297.57	11 J	ND (14)	ND (16)	ND (16)	11	44,000	31
	12/16/2010	330.54	32.85	ND	ND	297.69	ND (25)	ND (35)	ND (40)	ND (40)	BRL	49,000	32
	2/17/2011	330.54	33.62	ND	ND	296.92	ND (25)	ND (35)	ND (40)	ND (40)	BRL	41,000	34
MW-9	10/15/2009	333.46	35.60	ND	ND	297.86	ND (1.0)	ND (1.0)	ND (1.0)	1.1	1.1	64.7	0.43
	6/22/2010	333.46	32.32	ND	ND	301.14	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	22	0.076
	9/30/2010	333.46	34.85	ND	ND	298.61	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	52	0.21
	12/16/2010	333.46	34.73	ND	ND	298.73	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	81	0.21
	2/17/2011	333.46	35.28	ND	ND	298.18	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	48	0.19

TABLE 1

Groundwater Monitoring & Analytical Data

Fairfax Facility #26140

9901 Georgetown Pike

Great Falls, VA

July 24, 2009 through February 18, 2011

Sample ID	Date	Gauging Data					Analytical Data						
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Methyl Tertiary Butyl Ether (µg/L)	TPH-GRO (mg/L)
MW-10	10/15/2009	324.17	28.77	ND	ND	295.40	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	BRL	10.4	ND (0.20)
	6/22/2010	324.17	25.80	ND	ND	298.37	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	4 J	ND (0.02)
	9/30/2010	324.17	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS
	12/16/2010	324.17	27.72	ND	ND	296.45	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	10	ND (0.02)
	2/17/2011	324.17	28.05	ND	ND	296.12	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	7	ND (0.02)
MW-11	10/16/2009	329.64	NM	NM	NM	NM	16.1	ND (10)	ND (10)	6.6	22.7	38,400	35.6
	6/22/2010	329.64	29.00	ND	ND	300.64	ND (50)	ND (70)	ND (80)	ND (80)	BRL	170,000	150
	9/30/2010	329.64	31.42	ND	ND	298.22	ND (50)	ND (70)	ND (80)	ND (80)	BRL	130,000	93
	12/16/2010	329.64	31.22	ND	ND	298.42	ND (25)	ND (35)	ND (40)	ND (40)	BRL	41,000	30
	2/17/2011	329.64	31.81	ND	ND	297.83	ND (10)	ND (14)	ND (16)	ND (16)	BRL	23,000	15
MW-12 (110)	2/18/2011	326.43	30.25	ND	ND	296.18	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	1 J	ND (0.2)
MW-12 (153)	2/18/2011	326.43	30.25	ND	ND	296.18	ND (0.5)	ND (0.7)	ND (0.8)	ND (0.8)	BRL	0.6 J	ND (0.2)
PW-1	8/17/2009	334.54	NM	NM	NM	NM	0.76	ND (0.50)	ND (0.50)	0.46 J	1.22	1,320	NA
	9/30/2010	334.54	35.69	ND	ND	298.85	NS	NS	NS	NS	NS	NS	NS
	12/16/2010	334.54	36.51	ND	ND	298.03	NS	NS	NS	NS	NS	NS	NS
PW-1(65)	10/16/2009	334.54	NM	NM	NM	NM	8	ND	ND	8.4	16.4	250	0.00187
	6/22/2010	334.54	34.47	ND	ND	300.07	8	ND (0.7)	ND (0.8)	7	15	1,600	2.2
	9/30/2010	334.54	35.69	ND	ND	298.85	9	ND (0.7)	ND (0.8)	5 J	14	1,600	2
	12/16/2010	334.54	36.51	ND	ND	298.03	6 J	ND (1)	ND (2)	5 J	11	1,700	1.9
	2/18/2011	334.54	37.44	ND	ND	297.10	9 J	ND (4)	ND (4)	5 J	14	2,000	2.4
PW-1(85)	6/22/2010	334.54	34.47	ND	ND	300.07	8	ND (0.7)	ND (0.8)	5	13	2,000	2.4
	9/30/2010	334.54	35.69	ND	ND	298.85	9	ND (0.7)	ND (0.8)	6	15	1,700	2
	12/16/2010	334.54	36.51	ND	ND	298.03	8	ND (0.7)	ND (0.8)	6	14	1,900	2
	2/18/2011	334.54	37.44	ND	ND	297.10	2 J	ND (1)	ND (2)	2 J	4	1,700	1.7

TABLE 1

Groundwater Monitoring & Analytical Data

Fairfax Facility #26140

9901 Georgetown Pike

Great Falls, VA

July 24, 2009 through February 18, 2011

Sample ID	Date	Gauging Data					Analytical Data						
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	Methyl Tertiary Butyl Ether (µg/L)	TPH-GRO (mg/L)
PW-1(105)	10/16/2009	334.54	NM	NM	NM	NM	5.8	ND	ND	4.1	9.9	1,180	0.00371
	6/22/2010	334.54	34.47	ND	ND	300.07	5 J	ND (1)	ND (2)	3 J	8	2,300	2.6
	9/30/2010	334.54	35.69	ND	ND	298.85	9	ND (0.7)	ND (0.8)	5	14	1,800	2
	12/16/2010	334.54	36.51	ND	ND	298.03	8 J	ND (1)	ND (2)	5 J	13	1,700	2.1
	2/18/2011	334.54	37.44	ND	ND	297.10	4 J	ND (4)	ND (4)	ND (4)	4	1,800	1.9

Notes:

µg/L - micrograms per liter (parts per billion)

GW - Groundwater

J - Indicates an estimated value

mg/L - milligrams per liter (parts per million)

BTEX - Benzene, Toluene, Ethylbenzene and Total Xylenes

MTBE - Methyl Tertiary Butyl Ether

MW-6D(65) - Value in parenthesis indicates depth interval measured in feet

ND - Not detected

ND(5.0) - Not detected at or above the laboratory reporting limit, laboratory reporting limit included.

NM - Not monitored

NS - Not sampled

TPH-GRO - Total Petroleum Hydrocarbons-Gasoline Range Organics

**APPENDIX A:
Soil Boring and Monitoring Well Construction Log**



1340 Charwood Road, Suite I
Hanover, MD 21076
(410) 850-0404

BORING LOG
Boring No. MW-12

Project Name: Fairfax Facility #26140 Great Falls
Site Location: 9830 Georgetown Pike, Great Falls, VA
Kleinfelder Project No: 114992
Client: Fairfax Petroleum Realty LLC
Drilling Company: Connelly and Assoc.
Driller: C. Shaff
Drill Rig Type: Schramm T450
Drilling Method: Air Rotary
Sampling Method: Cuttings

Start Date: 1-11-11
End Date: 1-13-11
Total Hole Depth: 160 feet
Hole Diameter: 10"(0-100), 6"(100-160)
Depth to Bedrock: 95 feet
Surface Elevation: NA
Water Level (Initial): 85 feet
Water Level (Static): 30.07 feet
Logged By (Geol.): C. Low

Permit No.: NA
License No.: NA
Checked By: R. Perkins
Notes:

SUBSURFACE PROFILE			SAMPLE					
Depth (feet)	Graphic Log	Soil/Geologic Description (Unified Soil Classification System)	Sample ID	PID (ppm)	Well Construction	Depth (feet)		
0		Ground Surface				0		
1		SP Very fine SAND, brown, dry		0.0		1		
2								2
3								3
4								4
5								5
6								6
7								7
8								8
9								9
10							0.0	
11		SM Fine SAND with trace silt, light brown, dry				11		
12							12	
13							13	
14							14	
15							15	
16							16	
17							17	
18							18	
19							19	
20						0.0		20
21		SM Fine SAND with trace silt, light brown, slightly micaceous, dry				21		
22							22	
23							23	
24							24	
25							25	
26							26	
27							27	
28							28	
29							29	
30				Weathered Rock at 30 feet				30
31		SM Silty fine SAND, light brown, micaceous, dry				31		
32							32	
33							33	
34							34	
35							35	
36							36	
37							37	
38							38	
39							39	
40						0.0		40
41		ML SILT with fine sand, gray, micaceous, dry				41		
42							42	
43							43	
44				Cuttings moist at 45 feet				44
45					MW-12 (45)	0.0		45
46								46
47								47
48								48
49								49
50						0.0		50
51						51		
52							52	
53							53	
54							54	
55							55	
56							56	
57							57	
58							58	
59							59	
60						0.0		60
61						61		

PID - Photoionization Detector
NA - Not Applicable
NS - Not Sampled
NM - Not Measured
MU - Meter Units
PP - Pocket Penetrometer Reading (tons/sq. foot)



1340 Charwood Road, Suite I
Hanover, MD 21076
(410) 850-0404

BORING LOG
Boring No. MW-12

Project Name: Fairfax Facility #26140 Great Falls
Site Location: 9830 Georgetown Pike, Great Falls, VA
Kleinfelder Project No: 114992
Client: Fairfax Petroleum Realty LLC
Drilling Company: Connelly and Assoc.
Driller: C. Shaff
Drill Rig Type: Schramm T450
Drilling Method: Air Rotary
Sampling Method: Cuttings

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Surface Elevation: NA
Water Level (Initial): 85 feet
Water Level (Static): 30.07 feet
Logged By (Geol.): C. Low

Permit No.: NA
License No.: NA
Checked By: R. Perkins
Notes:

SUBSURFACE PROFILE			SAMPLE					
Depth (feet)	Graphic Log	Soil/Geologic Description (Unified Soil Classification System)	Sample ID	PID (ppm)	Well Construction	Depth (feet)		
62		ML SILT with fine sand and trace black rock fragments, gray, moist, micaceous		0.0		62		
63							63	
64								64
65								65
66								66
67								67
68								68
69								69
70								70
71								71
72		Water returning at surface at 85 feet		0.0		72		
73								73
74								74
75								75
76								76
77								77
78								78
79								79
80								80
81								81
82		ML SILT with gravel, gray, micaceous, wet, black rock fragments present		0.0		82		
83								83
84								84
85								85
86								86
87								87
88								88
89								89
90								90
91								91
92		Bk Schist, black, some quartz grains		0.0		92		
93								93
94								94
95								95
96								96
97								97
98								98
99								99
100								100
101								101
102		Water bearing fracture at 109 -110 feet				102		
103								103
104								104
105								105
106								106
107								107
108								108
109								109
110								110
111								111
112						112		
113								113
114								114
115								115
116								116
117								117
118								118
119								119
120								120
121								121
122						122		
123								123
124								124
125								125
126								126
127								127
128								128
129								129
130								130
131								131

PID - Photoionization Detector
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1340 Charwood Road, Suite I
Hanover, MD 21076
(410) 850-0404

BORING LOG
Boring No. MW-12

Project Name: Fairfax Facility #26140 Great Falls
Site Location: 9830 Georgetown Pike, Great Falls, VA
Kleinfelder Project No: 114992
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Surface Elevation: NA
Water Level (Initial): 85 feet
Water Level (Static): 30.07 feet
Logged By (Geol.): C. Low

Permit No.: NA
License No.: NA
Checked By: R. Perkins
Notes:

SUBSURFACE PROFILE			SAMPLE								
Depth (feet)	Graphic Log	Soil/Geologic Description (Unified Soil Classification System)	Sample ID	PID (ppm)	Well Construction	Depth (feet)					
123		Fracture at 153 feet				123					
124						124					
125						125					
126						126					
127						127					
128						128					
129						129					
130						130					
131						131					
132						132					
133						133					
134						134					
135						135					
136						136					
137						137					
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148						148					
149						149					
150						150					
151						151					
152						152					
153						153					
154						154					
155						155					
156						156					
157						157					
158						158					
159						159					
160							End of Borehole				160
161						161					
162						162					
163						163					
164						164					
165						165					
166						166					
167						167					
168						168					
169						169					
170						170					
171						171					
172						172					
173						173					
174						174					
175						175					
176						176					
177						177					
178						178					
179						179					
180						180					
181						181					
182						182					
183						183					

PID - Photoionization Detector
NA - Not Applicable
NS - Not Sampled
NM - Not Measured
MU - Meter Units
PP - Pocket Penetrometer Reading (tons/sq. foot)

APPENDIX B:
Soil Laboratory Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Kleinfelder
30 Porter Road
Littleton MA 01460

January 24, 2011

Project: Fairfax 26140

Submittal Date: 01/12/2011

Group Number: 1228822

PO Number: 08531-121610

State of Sample Origin: VA

Client Sample Description

MW-12 (45) Grab Soil Sample

Lancaster Labs (LLI) #

6182495

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Kleinfelder
COPY TO
ELECTRONIC Kleinfelder
COPY TO

Attn: Mark Steele

Attn: Angela Vogt

Questions? Contact your Client Services Representative
Loran A Carter at (717) 656-2300 Ext. 1375

Respectfully Submitted,



Robin C. Runkle
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: MW-12 (45) Grab Soil Sample
Fairfax 26140**

**LLI Sample # SW 6182495
LLI Group # 1228822
Account # 12152**

Project Name: Fairfax 26140

Collected: 01/11/2011 10:25 by CL

Kleinfelder

30 Porter Road

Submitted: 01/12/2011 15:45

Littleton MA 01460

Reported: 01/24/2011 15:33

12140

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation	Dilution Factor
GC/MS Volatiles			SW-846 8260B	mg/kg	mg/kg
10950	Benzene	71-43-2	< 0.006	0.006	1.06
10950	Ethylbenzene	100-41-4	< 0.006	0.006	1.06
10950	Methyl Tertiary Butyl Ether	1634-04-4	< 0.006	0.006	1.06
10950	Toluene	108-88-3	< 0.006	0.006	1.06
10950	Xylene (Total)	1330-20-7	< 0.006	0.006	1.06
GC Volatiles			SW-846 8015B	mg/kg	mg/kg
01637	TPH-GRO soil C6-C10	n.a.	< 1.2	1.2	29.14
GC Miscellaneous			SW-846 8015B	mg/kg	mg/kg
10941	TPH-DRO soil C10-C28 microwave	n.a.	< 13	13	1
Wet Chemistry			SM20 2540 G	%	%
00111	Moisture	n.a.	6.0	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	UST BTEX/MTBE in Soil	SW-846 8260B	1	X110171AA	01/18/2011 00:44	Laura M Krieger	1.06
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201101423505	01/11/2011 10:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201101423505	01/11/2011 10:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201101423505	01/11/2011 10:25	Client Supplied	1
01637	TPH-GRO soil C6-C10	SW-846 8015B	1	11018A34A	01/18/2011 16:36	Marie D John	29.14
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201101423505	01/11/2011 10:25	Client Supplied	n.a.
10941	TPH-DRO soil C10-C28 microwave	SW-846 8015B	1	110130002A	01/15/2011 02:27	Glorines Suarez-Rivera	1
10942	Microwave Extraction-DRO soils	SW-846 3546	1	110130002A	01/13/2011 09:25	Heidi L Ortenzi	1
00111	Moisture	SM20 2540 G	1	11014820001B	01/14/2011 18:53	Scott W Freisher	1

Quality Control Summary

 Client Name: Kleinfelder
 Reported: 01/24/11 at 03:33 PM

Group Number: 1228822

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: X110171AA	Sample number(s): 6182495							
Benzene	< 0.005	0.005	mg/kg	92	96	80-120	5	30
Ethylbenzene	< 0.005	0.005	mg/kg	94	98	80-120	5	30
Methyl Tertiary Butyl Ether	< 0.005	0.005	mg/kg	86	88	74-121	3	30
Toluene	< 0.005	0.005	mg/kg	97	99	80-120	2	30
Xylene (Total)	< 0.005	0.005	mg/kg	95	100	80-120	5	30
Batch number: 11018A34A	Sample number(s): 6182495							
TPH-GRO soil C6-C10	< 1.0	1.0	mg/kg	80	88	67-119	8	30
Batch number: 110130002A	Sample number(s): 6182495							
TPH-DRO soil C10-C28 microwave	< 12	12.	mg/kg	94		76-117		
Batch number: 11014820001B	Sample number(s): 6182495							
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG MAX	DUP Conc	DUP RPD	Dup RPD Max
Batch number: X110171AA	Sample number(s): 6182495 UNSPK: P184350							
Benzene	98		55-143					
Ethylbenzene	102		44-141					
Methyl Tertiary Butyl Ether	90		55-129					
Toluene	100		50-146					
Xylene (Total)	98		44-136					
Batch number: 110130002A	Sample number(s): 6182495 UNSPK: P181962 BKG: P181962							
TPH-DRO soil C10-C28 microwave	100		30-159		< 12	< 12	9 (1)	20
Batch number: 11014820001B	Sample number(s): 6182495 BKG: P182154							
Moisture					14.1	13.4	5	15

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Kleinfelder

Group Number: 1228822

Reported: 01/24/11 at 03:33 PM

Surrogate Quality Control

Analysis Name: VOCs TCL (4.3) 8260 Soil

Batch number: X110171AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6182495	101	99	98	97
Blank	100	102	96	95
LCS	98	99	104	98
LCSD	98	102	103	98
MS	99	106	103	97

Limits: 71-114 70-109 70-123 70-111

Analysis Name: TPH-GRO soil C6-C10

Batch number: 11018A34A

Trifluorotoluene-F

6182495	92
Blank	86
LCS	83
LCSD	92

Limits: 61-122

Analysis Name: TPH-DRO soil C10-C28 microwave

Batch number: 110130002A

Orthoterphenyl

6182495	91
Blank	91
DUP	69
LCS	104
MS	90

Limits: 59-129

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Request/Environmental Services Chain of Custody

For Lancaster Laboratories use only Acct. #: 12152
 Group #: 22822 Sample #: 6182495 (1)

Client: <u>Kleinfelder</u>		Acct. #:		Matrix		Analyses Requested						For Lab Use Only							
Project Name#: <u>Fairfax 26140</u>		PWSID #:		Possible		Preservation Codes						FSC:							
Project Manager: <u>Mark Steele</u>		P.O. #: <u>08531-12/6/0</u>		NPDES								SCR#:							
Sampler: <u>Charlie Low</u>		Quote #:										Preservation Codes							
Name of State where samples were collected: <u>Virginia</u>												<input type="checkbox"/> H-HCI <input type="checkbox"/> Tr-Thiosulfate <input type="checkbox"/> H-H2O2 <input type="checkbox"/> H-H2O <input type="checkbox"/> H-2SO4 <input type="checkbox"/> Other							
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	Full-List-VOCs - 8260	TPH-GRO, EPA 8015	TPH-DRO, EPA 8015	*Remarks		Temperature of samples upon receipt (if requested)					
<u>MW-12 (45)</u>	<u>1/11/2011</u>	<u>1025</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>BTEX/mTBE only per R.P. 1/14/11 AC</u>							
<i>[Handwritten signature]</i>																			
Turnaround Time Requested (TAT) (please circle): Normal <input type="checkbox"/> Rush <input type="checkbox"/>								Relinquished by: <u>[Signature]</u>		Date: <u>1/2/11</u>		Time: <u>11:00</u>		Received by: <u>Sample Room</u>		Date: <u></u>		Time: <u></u>	
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)								Relinquished by: <u>Sample Room</u>		Date: <u>1/2/11</u>		Time: <u>11:00</u>		Received by: <u>[Signature]</u>		Date: <u>1/4/11</u>		Time: <u>16:00</u>	
Date results are needed: _____								Relinquished by: <u>[Signature]</u>		Date: <u>1/11/11</u>		Time: <u>15:45</u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Rush results requested by (please circle): Phone <input type="checkbox"/> Fax <input type="checkbox"/> E-mail <input type="checkbox"/>								Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Phone #: _____ Fax #: _____								Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
E-mail address: <u>mcsteele@kleinfelder.com</u>								Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Data Package Options (please circle if required)				SDG Complete? Yes <input type="checkbox"/> No <input type="checkbox"/>				Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Type I (validation/NJ reg) <u>TX-TRRP-13</u>								Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Type II (Tier II) <u>MA MCP</u> <u>CT RCP</u>								Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Type III (Reduced NJ)				State-specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input type="checkbox"/>				Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Type IV (CLP SOW)				(If yes, indicated QC sample and submit triplicate volume)				Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u></u>		Date: <u></u>		Time: <u></u>	
Type VI (Raw Data Only)				Internal COC required? Yes <input type="checkbox"/> No <input type="checkbox"/>				Relinquished by: <u></u>		Date: <u></u>		Time: <u></u>		Received by: <u>Kristi Lag</u>		Date: <u>1-12-11</u>		Time: <u>1545</u>	

Lancaster Laboratories, Inc. 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 717-656-2300

Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

**APPENDIX C:
Non-Hazardous Waste Manifest**

For Facility Use Only

I.D.#

62175

NON-HAZARDOUS MANIFEST

For Facility Use Only

Manifest# 57989

Date:

Reco BIOTECHNOLOGY
710 Hospital Street
Richmond, VA 23219
(804) 644-2800

Generator:

Name

Fairfax Petroleum Realty

Contact Name

Charles Low

Address

9901 Georgetown Pike

Telephone

413-224-6526

Great Falls, VA

ExxonMobil station # 2-6140 at above address

Transporter:

Name

First Call Env

Contact Name

Mike Harris

or Carrier

Address

Ashland, VA

Telephone

800-646-1290

Destination:

Reco Biotechnology

Contact

Reco Biotechnology

Delivery Address

710 Hospital Street

Telephone

(804) 644-2800

Richmond, VA 23219

Route:

VA-23219

NO. of Packages	(*) Container	Shipping Description	Soil Weight (Sub. to Cor.)
12	DM	Non-Regulated Material non-regulated None None (petroleum contaminated soil)	

- * - DM = Drum
- DT = Dump Truck/Trailer
- SC = Steel Container
- RC = Rail Car

Truck #:

*Gross Weight:

Tare Weight:

Net Weight:

* May attach weight tickets

Certification:

I/We certify that the above material is not a HAZARDOUS WASTE as defined by the Resource Conservation and Recovery Act (RCRA), Virginia Hazardous Waste Management Regulations or as defined by the state of origin.

PRINTED/TYPED NAME & TITLE

SIGNATURE

DATE

Truck Driver's Signature:

Date:

Discrepancies:

RECEIVED BY: Reco Biotechnology

SIGNED BY:

DATE:

1-31-11

Aqua Clean of Virginia, LLC dba Reco Biotechnology

**APPENDIX D:
VADEQ Directive Letter
(December 10, 2009)**



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800 Fax (703) 583-3821

www.deq.virginia.gov

L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

December 10, 2009

Ms. Alexandria McBride
ExxonMobil Environmental Services Company
3225 Gallows Road, Room 8B0420
Fairfax, VA 22037

RE: **PC#2010-3028**; Exxon Station #2-6140
9901 Georgetown Pike, Great Falls, Fairfax County 22066
Site Characterization Report received November 11, 2009

Dear Ms. McBride:

The Virginia Department of Environmental Quality (DEQ) has reviewed the referenced Site Characterization Report (SCR). The report recommends continued sampling of the existing monitoring wells, delineation of the dissolved phase hydrocarbons southeast/east of the site, conducting a remediation feasibility study, and preparation of a Corrective Action Plan (CAP).

This office does not believe sufficient information has been obtained to justify or allow an adequate CAP to be designed. Specifically, information from additional deep monitoring wells and offsite shallow monitoring wells needs to be obtained.

On or before **February 12, 2010**, a Site Characterization Report Addendum should be submitted to this office. The Addendum should include the following:

- Installation of at least three additional shallow ground water monitoring wells on the property located to the southeast/east of Exxon facility to better define the horizontal distribution of dissolved phase hydrocarbons in the shallow aquifer.
- Installation of one bedrock monitoring well to the north/northeast of the former on-site potable well and one to the south/southwest to validate that there has not been off-site movement of MTBE in the lower aquifer. A site drawing with the proposed well locations should be submitted to this office for approval prior to proceeding with installation.

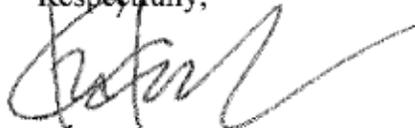
- Perform low flow sampling of the former potable well, MW-6D, and new bedrock wells at the following depths: 60 feet below top of casing (TOC), 85 feet below TOC, and 105 feet below TOC or at intervals in MW-6D and the additional bedrock monitoring wells where potential fractures were/are documented during drilling activities.
- Analysis of ground water samples from all new and existing wells for BTEX/MTBE and TPH-GRO.
- Update risk assessment based upon the results of the newly installed wells, if warranted. And.
- Proposal of additional assessment and/or viable remediation strategies (if necessary).

After this office has reviewed the report, a decision on case closure, additional assessment, or corrective action will be made.

If you wish to access the Virginia Petroleum Storage Tank Fund (VPSTF), the submittal of an Activity Authorization Form (AAF) and/or competitive bids is required. In order to meet the submittal date for the SCR Addendum, an AAF should be submitted as soon as possible.

The Virginia DEQ is very interested in assisting you in any way possible to bring this investigation to closure, effectively and efficiently. If you have any questions or if you need additional guidance, feel free to contact me at **703-583-3825**. Please include the PC file number, referenced above, in all correspondence.

Respectfully,



Kurt W. Kochan
Environmental Geologist

Kk/103028.doc

cc: File
GES via email to ATaylorsoncollins@gesonline.com

**APPENDIX E:
Groundwater Laboratory Analysis Reports
(February 17 and 18, 2011)**

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Kleinfelder
30 Porter Road
Littleton MA 01460

March 02, 2011

Project: Fairfax 26140

Submittal Date: 02/18/2011

Group Number: 1233885

PO Number: 08531-117575

State of Sample Origin: VA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
MW-1 Grab Water Sample	6210399
MW-2 Grab Water Sample	6210400
MW-5 Grab Water Sample	6210401
MW-6S Grab Water Sample	6210402
MW-6D (65 ft) Grab Water Sample	6210403
MW-6D (85 ft) Grab Water Sample	6210404
MW-6D (105 ft) Grab Water Sample	6210405
MW-7 Grab Water Sample	6210406
MW-8 Grab Water Sample	6210407
MW-9 Grab Water Sample	6210408
MW-10 Grab Water Sample	6210409
MW-11 Grab Water Sample	6210410
Trip Blank Water Sample	6210411

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Kleinfelder
COPY TO
ELECTRONIC Kleinfelder
COPY TO

Attn: Mark Steele

Attn: Angela Vogt

Questions? Contact your Client Services Representative
Loran A Carter at (717) 656-2300 Ext. 1375

Respectfully Submitted,



Martha L. Seidel
Senior Chemist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-1 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210399
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 09:20 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

16140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	250	500
10903	Ethylbenzene	100-41-4	N.D.	400	500
10903	Methyl Tertiary Butyl Ether	1634-04-4	190,000	2,500	5000
10903	Toluene	108-88-3	N.D.	350	500
10903	Xylene (Total)	1330-20-7	N.D.	400	500
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	170	1.0	50

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 03:35	Kevin A Sposito	500
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 03:58	Kevin A Sposito	5000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/24/2011 03:35	Kevin A Sposito	500
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N110542AA	02/24/2011 03:58	Kevin A Sposito	5000
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 12:49	Katrina T Longenecker	50
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 12:49	Katrina T Longenecker	50



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-2 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210400
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 11:30 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

26140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	100	200
10903	Ethylbenzene	100-41-4	N.D.	160	200
10903	Methyl Tertiary Butyl Ether	1634-04-4	140,000	1,000	2000
10903	Toluene	108-88-3	N.D.	140	200
10903	Xylene (Total)	1330-20-7	N.D.	160	200
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	120	1.0	50

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 04:21	Kevin A Sposito	200
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 04:44	Kevin A Sposito	2000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/24/2011 04:21	Kevin A Sposito	200
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N110542AA	02/24/2011 04:44	Kevin A Sposito	2000
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 13:11	Katrina T Longenecker	50
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 13:11	Katrina T Longenecker	50



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-5 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210401
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 10:58 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

56140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	2 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/23/2011 22:49	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/23/2011 22:49	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/22/2011 23:59	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/22/2011 23:59	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-6S Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210402
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 08:25 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

6S140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/23/2011 23:12	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/23/2011 23:12	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 00:21	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 00:21	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-6D (65 ft) Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210403
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 08:45 by CL

Kleinfelder
30 Porter Road
Littleton MA 01460

Submitted: 02/18/2011 15:15

Reported: 03/02/2011 13:44

66540

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B ug/l					
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B mg/l					
01635	TPH-GRO water C6-C10	n.a.	0.035 J	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/23/2011 23:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/23/2011 23:35	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 00:43	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 00:43	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-6D (85 ft) Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210404
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 09:25 by CL

Kleinfelder
30 Porter Road
Littleton MA 01460

Submitted: 02/18/2011 15:15

Reported: 03/02/2011 13:44

68540

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B ug/l					
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B mg/l					
01635	TPH-GRO water C6-C10	n.a.	0.033 J	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/23/2011 23:58	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/23/2011 23:58	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 10:16	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 10:16	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-6D (105 ft) Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210405
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 10:05 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

60540

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	0.030 J	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 00:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/24/2011 00:22	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 01:48	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 01:48	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: MW-7 Grab Water Sample
Fairfax 26140**

**LLI Sample # WW 6210406
LLI Group # 1233885
Account # 12152**

Project Name: Fairfax 26140

Collected: 02/17/2011 08:58 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

76140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	10	20
10903	Ethylbenzene	100-41-4	N.D.	16	20
10903	Methyl Tertiary Butyl Ether	1634-04-4	9,700	100	200
10903	Toluene	108-88-3	N.D.	14	20
10903	Xylene (Total)	1330-20-7	N.D.	16	20
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	9.0	0.10	5

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110551AA	02/24/2011 20:38	Linda C Pape	20
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110551AA	02/24/2011 21:01	Linda C Pape	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110551AA	02/24/2011 20:38	Linda C Pape	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N110551AA	02/24/2011 21:01	Linda C Pape	200
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 11:00	Katrina T Longenecker	5
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 11:00	Katrina T Longenecker	5



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: MW-8 Grab Water Sample
Fairfax 26140**

**LLI Sample # WW 6210407
LLI Group # 1233885
Account # 12152**

Project Name: Fairfax 26140

Collected: 02/17/2011 10:00 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

86140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	25	50
10903	Ethylbenzene	100-41-4	N.D.	40	50
10903	Methyl Tertiary Butyl Ether	1634-04-4	41,000	250	500
10903	Toluene	108-88-3	N.D.	35	50
10903	Xylene (Total)	1330-20-7	N.D.	40	50
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	34	0.20	10

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110551AA	02/24/2011 21:58	Kevin A Sposito	50
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110551AA	02/24/2011 22:21	Kevin A Sposito	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110551AA	02/24/2011 21:58	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N110551AA	02/24/2011 22:21	Kevin A Sposito	500
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11053C20A	02/23/2011 12:27	Katrina T Longenecker	10
01146	GC VOA Water Prep	SW-846 5030B	1	11053C20A	02/23/2011 12:27	Katrina T Longenecker	10



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-9 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210408
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 10:35 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

96140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	48	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	0.19	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/24/2011 00:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/24/2011 00:45	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 12:30	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 12:30	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-10 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210409
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 07:52 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

10140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	7	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110551AA	02/24/2011 22:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110551AA	02/24/2011 22:44	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 12:52	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 12:52	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-11 Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210410
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011 09:35 by CL

Kleinfelder

30 Porter Road

Submitted: 02/18/2011 15:15

Littleton MA 01460

Reported: 03/02/2011 13:44

11140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	10	20
10903	Ethylbenzene	100-41-4	N.D.	16	20
10903	Methyl Tertiary Butyl Ether	1634-04-4	23,000	100	200
10903	Toluene	108-88-3	N.D.	14	20
10903	Xylene (Total)	1330-20-7	N.D.	16	20
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	15	0.10	5

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110562AA	02/25/2011 09:42	Angela D Sneeringer	20
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110562AA	02/25/2011 10:06	Angela D Sneeringer	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110562AA	02/25/2011 09:42	Angela D Sneeringer	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N110562AA	02/25/2011 10:06	Angela D Sneeringer	200
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 19:25	Katrina T Longenecker	5
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 19:25	Katrina T Longenecker	5



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip Blank Water Sample
Fairfax 26140

LLI Sample # WW 6210411
LLI Group # 1233885
Account # 12152

Project Name: Fairfax 26140

Collected: 02/17/2011

Kleinfelder
30 Porter Road
Littleton MA 01460

Submitted: 02/18/2011 15:15

Reported: 03/02/2011 13:44

TB140

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	N110542AA	02/23/2011 21:39	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N110542AA	02/23/2011 21:39	Kevin A Sposito	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 11:47	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 11:47	Katrina T Longenecker	1

Quality Control Summary

 Client Name: Kleinfelder
 Reported: 03/02/11 at 01:44 PM

Group Number: 1233885

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: N110542AA	Sample number(s): 6210399-6210405,6210408,6210411							
Benzene	N.D.	0.5	ug/l	105	103	79-120	2	30
Ethylbenzene	N.D.	0.8	ug/l	109	108	79-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	101	104	76-120	2	30
Toluene	N.D.	0.7	ug/l	109	109	79-120	0	30
Xylene (Total)	N.D.	0.8	ug/l	111	110	80-120	1	30
Batch number: N110551AA	Sample number(s): 6210406-6210407,6210409							
Benzene	N.D.	0.5	ug/l	108		79-120		
Ethylbenzene	N.D.	0.8	ug/l	113		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	108		76-120		
Toluene	N.D.	0.7	ug/l	113		79-120		
Xylene (Total)	N.D.	0.8	ug/l	114		80-120		
Batch number: N110562AA	Sample number(s): 6210410							
Benzene	N.D.	0.5	ug/l	105	104	79-120	1	30
Ethylbenzene	N.D.	0.8	ug/l	109	109	79-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105	103	76-120	2	30
Toluene	N.D.	0.7	ug/l	109	108	79-120	1	30
Xylene (Total)	N.D.	0.8	ug/l	110	110	80-120	0	30
Batch number: 11053C20A	Sample number(s): 6210399-6210407							
TPH-GRO water C6-C10	N.D.	0.020	mg/l	118	109	75-135	8	30
Batch number: 11055B20A	Sample number(s): 6210408-6210411							
TPH-GRO water C6-C10	N.D.	0.020	mg/l	100	100	75-135	0	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: N110551AA	Sample number(s): 6210406-6210407,6210409 UNSPK: P212308								
Benzene	109	114	80-126	4	30				
Ethylbenzene	114	120	71-134	6	30				
Methyl Tertiary Butyl Ether	102	107	72-126	5	30				
Toluene	114	120	80-125	6	30				
Xylene (Total)	114	119	79-125	5	30				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

 Client Name: Kleinfelder
 Reported: 03/02/11 at 01:44 PM

Group Number: 1233885

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL 8260 Water

Batch number: N110542AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6210399	99	99	99	95
6210400	99	100	99	95
6210401	99	99	99	93
6210402	100	99	99	95
6210403	101	100	99	95
6210404	101	99	98	94
6210405	100	99	99	94
6210408	101	102	98	94
6210411	100	99	99	95
Blank	100	102	98	94
LCS	100	103	105	103
LCSD	99	102	105	101

Limits: 80-116 77-113 80-113 78-113

Analysis Name: PPL 8260 Water

Batch number: N110551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6210406	101	98	100	93
6210407	101	98	100	92
6210409	103	102	101	94
Blank	101	98	100	94
LCS	99	102	105	102
MS	99	100	105	101
MSD	97	99	106	102

Limits: 80-116 77-113 80-113 78-113

Analysis Name: PPL 8260 Water

Batch number: N110562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6210410	98	100	100	94
Blank	102	102	100	94
LCS	99	104	105	103
LCSD	99	104	106	103

Limits: 80-116 77-113 80-113 78-113

Analysis Name: TPH-GRO water C6-C10

Batch number: 11053C20A

Trifluorotoluene-F

6210399	81
6210400	79
6210401	77
6210402	77
6210403	80

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Kleinfelder
Reported: 03/02/11 at 01:44 PM

Group Number: 1233885

Surrogate Quality Control

6210404	78
6210405	79
6210406	78
6210407	81
Blank	79
LCS	125
LCSD	119

Limits: 63-135

Analysis Name: TPH-GRO water C6-C10
Batch number: 11055B20A
Trifluorotoluene-F

6210408	87
6210409	85
6210410	87
6210411	84
Blank	84
LCS	106
LCSD	107

Limits: 63-135

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Request/Environmental Services Chain of Custody

For Lancaster Laboratories use only Acct. #: 12152

Group #: 1233885 Sample #: 6210399-411

Client: Fairfax Petroleum		Acct. #:		Matrix		Analyses Requested				For Lab Use Only						
Project Name/ #: 26140/ Great Falls		PWSID #:				Preservation Codes				FSC:						
Project Address: 9901 Georgetown Pike Great Falls, VA																
Project Manager: Mark Steele		P.O. #: 08531-117575								SCR#:						
Sampler: Charles Low, Sean Reckford		Quote #:								Preservation Codes H-HCl T-Thiourea N-HNO3 B-NaOH S-H2SO4 O-Other						
Name of State where samples were collected: Virginia										Temperature of samples upon receipt (if requested)						
Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix			Total # of Containers	Analyses Requested				Remarks			
					Soil	Water	Other		H	H						
MW-1	2/17/11	0920	X			X		6	X	X						
MW-2	2/17/11	1130	X			X		6	X	X						
MW-3																
MW-5	2/17/11	1058	X			X		6	X	X						
MW-6S	2/17/11	0825	X			X		6	X	X						
MW-6D (65 ft)	2/17/11	0845	X			X		6	X	X						
MW-6D (85 ft)	2/17/11	0925	X			X		6	X	X						
MW-6D (105 ft)	2/17/11	1005	X			X		6	X	X						
MW-7	2/17/11	0858	X			X		6	X	X						
MW-8	2/17/11	1000	X			X		6	X	X						

Turnaround Time Requested (TAT) (please circle): Normal Rush
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: _____

Rush results requested by (please circle): Phone Fax E-mail

Phone #: _____ Fax #: _____

E-mail address: _____

Data Package Options (please circle if required)

Type I (validation/NJ reg) TX-TRRP-13
 Type II (Tier II) MA MCP CT RCP
 Type III (Reduced NJ)
 Type IV (CLP SOW)
 Type VI (Raw Data Only)

SDG Complete? Yes No

State-specific QC (MS/MSD/Dup)? Yes No
 (If yes, indicated QC sample and submit triplicate volume)

Internal COC required? Yes No

Relinquished by: <i>[Signature]</i>	Date: 2/17/11	Time: 1515	Received by: <i>[Signature]</i>	Date: 2/16/11	Time: 2:00
Relinquished by: <i>[Signature]</i>	Date: 2/16/11	Time: 15:15	Received by: <i>[Signature]</i>	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by: <i>[Signature]</i>	Date: 2/18/11	Time: 1515



Analysis Request/Environmental Services Chain of Custody

For Lancaster Laboratories use only Acct. #: 12152

Group #: 1233885 Sample #: 6210399-411

Client: <u>Fairfax Petroleum</u> Acct. #: _____				Matrix			Analyses Requested						For Lab Use Only				
Project Name/ #: <u>26140/ Great Falls</u> PWSID #: _____							Preservation Codes						FSC: _____				
Project Address: <u>9901 Georgetown Pike Great Falls, VA</u>													SCR#: _____				
Project Manager: <u>Mark Steele</u> P.O. #: <u>08531-117575</u>																	
Sampler: <u>Charles Law Sean Ralberd</u> Quote #: _____																	
Name of State where samples were collected: <u>Virginia</u>																	
Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix			Total # of Containers	Analyses Requested						Remarks	Temperature of samples upon receipt (if requested)	
					Soil	Water	Other		BTEX, MTBE 8260	TPH-GRO 8015							
MW-9	2/17/11	1035	X			X	6	X	X								
MW-10	2/17/11	0752	X			X	6	X	X								
MW-11	2/17/11	0935	X			X	6	X	X								
MW 12 (110)																	
MW 12 (153)																	
PW-01 (65ft)																	
PW-01 (85ft)																	
PW-01 (105ft)																	
Trip Blank						X	4	X	X								

Turnaround Time Requested (TAT) (please circle): <u>Normal</u> Rush				Relinquished by: <u>[Signature]</u>		Date: <u>2/17/11</u>	Time: <u>1515</u>	Received by: <u>Bill Doby</u>	Date: <u>2/18/11</u>	Time: <u>12:00</u>
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)				Relinquished by: <u>Bill Doby</u>		Date: <u>2-18-11</u>	Time: <u>15:15</u>	Received by: <u>[Signature]</u>	Date: _____	Time: _____
Date results are needed: _____				Relinquished by: _____		Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Rush results requested by (please circle): Phone Fax E-mail				Relinquished by: _____		Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Phone #: _____ Fax #: _____				Relinquished by: _____		Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
E-mail address: _____				Relinquished by: _____		Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Data Package Options (please circle if required)				SDG Complete? Yes No		Relinquished by: _____		Date: _____	Time: _____	Received by: _____
Type I (validation/NJ reg) TX-TRRP-13				Yes No		Relinquished by: _____		Date: _____	Time: _____	Received by: _____
Type II (Tier II) MA MCP CT RCP						Relinquished by: _____		Date: _____	Time: _____	Received by: _____
Type III (Reduced NJ)	State-specific QC (MS/MSD/Dup)? Yes No					Relinquished by: _____		Date: _____	Time: _____	Received by: _____
Type IV (CLP SOW)	(If yes, indicated QC sample and submit triplicate volume)					Relinquished by: _____		Date: _____	Time: _____	Received by: _____
Type VI (Raw Data Only)	Internal COC required? Yes No					Relinquished by: _____		Date: <u>2/18/11</u>	Time: <u>1515</u>	Received by: <u>[Signature]</u>

Lancaster Laboratories, Inc. 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 717-656-2300
 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Kleinfelder
30 Porter Road
Littleton MA 01460

March 01, 2011

Project: Fairfax 26140

Submittal Date: 02/19/2011

Group Number: 1233949

PO Number: 08531-117575

State of Sample Origin: VA

Client Sample DescriptionPW-1 (65) Grab Water Sample
PW-1 (85) Grab Water Sample
PW-1 (105) Grab Water Sample
MW-12 (110) Grab Water Sample
MW-12 (153) Grab Water Sample
Trip Blank Water SampleLancaster Labs (LLI) #6210797
6210798
6210799
6210800
6210801
6210802

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Kleinfelder
COPY TO
ELECTRONIC Kleinfelder
COPY TO

Attn: Mark Steele

Attn: Angela Vogt

Questions? Contact your Client Services Representative
Loran A Carter at (717) 656-2300 Ext. 1375

Respectfully Submitted,



Christine Dulaney
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: PW-1 (65) Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210797
LLI Group # 1233949
Account # 12152

Project Name: Fairfax 26140

Collected: 02/18/2011 09:20 by CL

Kleinfelder

30 Porter Road

Submitted: 02/19/2011 09:30

Littleton MA 01460

Reported: 03/01/2011 11:41

FFX65

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10903	Benzene	71-43-2	9 J	ug/l 3	5
10903	Ethylbenzene	100-41-4	N.D.	4	5
10903	Methyl Tertiary Butyl Ether	1634-04-4	2,000	25	50
10903	Toluene	108-88-3	N.D.	4	5
10903	Xylene (Total)	1330-20-7	5 J	4	5
GC Volatiles SW-846 8015B					
01635	TPH-GRO water C6-C10	n.a.	2.4	mg/l 0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110531AA	02/22/2011 11:21	Angela D Sneeringer	5
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110531AA	02/22/2011 11:44	Angela D Sneeringer	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110531AA	02/22/2011 11:21	Angela D Sneeringer	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T110531AA	02/22/2011 11:44	Angela D Sneeringer	50
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 13:58	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 13:58	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: PW-1 (85) Grab Water Sample
Fairfax 26140

LLI Sample # WW 6210798
LLI Group # 1233949
Account # 12152

Project Name: Fairfax 26140

Collected: 02/18/2011 10:00 by CL

Kleinfelder
30 Porter Road
Littleton MA 01460

Submitted: 02/19/2011 09:30

Reported: 03/01/2011 11:41

FFX85

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10903	Benzene	71-43-2	2 J	ug/l 1	2
10903	Ethylbenzene	100-41-4	N.D.	2	2
10903	Methyl Tertiary Butyl Ether	1634-04-4	1,700	10	20
10903	Toluene	108-88-3	N.D.	1	2
10903	Xylene (Total)	1330-20-7	2 J	2	2
GC Volatiles SW-846 8015B					
01635	TPH-GRO water C6-C10	n.a.	1.7	mg/l 0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110531AA	02/22/2011 12:08	Angela D Sneeringer	2
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110531AA	02/22/2011 12:31	Angela D Sneeringer	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110531AA	02/22/2011 12:08	Angela D Sneeringer	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T110531AA	02/22/2011 12:31	Angela D Sneeringer	20
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 14:19	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 14:19	Katrina T Longenecker	1

**Sample Description: PW-1 (105) Grab Water Sample
Fairfax 26140**

**LLI Sample # WW 6210799
LLI Group # 1233949
Account # 12152**

Project Name: Fairfax 26140

Collected: 02/18/2011 10:40 by CL

Kleinfelder

30 Porter Road

Submitted: 02/19/2011 09:30

Littleton MA 01460

Reported: 03/01/2011 11:41

105FF

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	4 J	3	5
10903	Ethylbenzene	100-41-4	N.D.	4	5
10903	Methyl Tertiary Butyl Ether	1634-04-4	1,800	25	50
10903	Toluene	108-88-3	N.D.	4	5
10903	Xylene (Total)	1330-20-7	N.D.	4	5
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	1.9	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110541AA	02/23/2011 14:14	Kerri E Legerlotz	5
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110541AA	02/23/2011 14:37	Kerri E Legerlotz	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110541AA	02/23/2011 14:14	Kerri E Legerlotz	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	T110541AA	02/23/2011 14:37	Kerri E Legerlotz	50
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 14:41	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 14:41	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: MW-12 (110) Grab Water Sample
Fairfax 26140**

**LLI Sample # WW 6210800
LLI Group # 1233949
Account # 12152**

Project Name: Fairfax 26140

Collected: 02/18/2011 12:25 by CL

Kleinfelder

30 Porter Road

Submitted: 02/19/2011 09:30

Littleton MA 01460

Reported: 03/01/2011 11:41

110FF

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	1 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110541AA	02/23/2011 12:16	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110541AA	02/23/2011 12:16	Kerri E Legerlotz	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 15:03	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 15:03	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description: MW-12 (153) Grab Water Sample
Fairfax 26140**

**LLI Sample # WW 6210801
LLI Group # 1233949
Account # 12152**

Project Name: Fairfax 26140

Collected: 02/18/2011 13:05 by CL

Kleinfelder

30 Porter Road

Submitted: 02/19/2011 09:30

Littleton MA 01460

Reported: 03/01/2011 11:41

153FF

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110541AA	02/23/2011 13:26	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110541AA	02/23/2011 13:26	Kerri E Legerlotz	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 15:47	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 15:47	Katrina T Longenecker	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: Trip Blank Water Sample
Fairfax 26140

LLI Sample # WW 6210802
LLI Group # 1233949
Account # 12152

Project Name: Fairfax 26140

Collected: 02/18/2011

Kleinfelder
30 Porter Road
Littleton MA 01460

Submitted: 02/19/2011 09:30

Reported: 03/01/2011 11:41

FFXTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	
10903	Benzene	71-43-2	N.D.	0.5	1
10903	Ethylbenzene	100-41-4	N.D.	0.8	1
10903	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10903	Toluene	108-88-3	N.D.	0.7	1
10903	Xylene (Total)	1330-20-7	N.D.	0.8	1
GC Volatiles SW-846 8015B			mg/l	mg/l	
01635	TPH-GRO water C6-C10	n.a.	N.D.	0.020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10903	VOCs 8260 BTEX, MTBE	SW-846 8260B	1	T110541AA	02/23/2011 11:29	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T110541AA	02/23/2011 11:29	Kerri E Legerlotz	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	11055B20A	02/25/2011 12:09	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	11055B20A	02/25/2011 12:09	Katrina T Longenecker	1

Quality Control Summary

 Client Name: Kleinfelder
 Reported: 03/01/11 at 11:41 AM

Group Number: 1233949

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: T110531AA	Sample number(s): 6210797-6210798							
Benzene	N.D.	0.5	ug/l	99	96	79-120	3	30
Ethylbenzene	N.D.	0.8	ug/l	108	106	79-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	108	106	76-120	2	30
Toluene	N.D.	0.7	ug/l	92	90	79-120	2	30
Xylene (Total)	N.D.	0.8	ug/l	110	106	80-120	3	30
Batch number: T110541AA	Sample number(s): 6210799-6210802							
Benzene	N.D.	0.5	ug/l	95		79-120		
Ethylbenzene	N.D.	0.8	ug/l	107		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	104		76-120		
Toluene	N.D.	0.7	ug/l	91		79-120		
Xylene (Total)	N.D.	0.8	ug/l	108		80-120		
Batch number: 11055B20A	Sample number(s): 6210797-6210802							
TPH-GRO water C6-C10	N.D.	0.020	mg/l	100	100	75-135	0	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: T110541AA	Sample number(s): 6210799-6210802 UNSPK: 6210800								
Benzene	95	95	80-126	0	30				
Ethylbenzene	111	106	71-134	4	30				
Methyl Tertiary Butyl Ether	101	99	72-126	2	30				
Toluene	95	92	80-125	3	30				
Xylene (Total)	112	108	79-125	3	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PPL 8260 Water

Batch number: T110531AA

Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
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*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Kleinfelder
Reported: 03/01/11 at 11:41 AM

Group Number: 1233949

Surrogate Quality Control

6210797	100	107	101	96
6210798	99	107	100	96
Blank	103	107	98	93
LCS	104	108	99	96
LCSD	103	110	99	95

Limits: 80-116 77-113 80-113 78-113

Analysis Name: PPL 8260 Water
Batch number: T110541AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

6210799	101	104	101	97
6210800	99	107	102	98
6210801	102	107	100	96
6210802	102	110	99	96
Blank	101	109	99	97
LCS	102	106	102	96
MS	101	106	103	97
MSD	102	108	101	95

Limits: 80-116 77-113 80-113 78-113

Analysis Name: TPH-GRO water C6-C10
Batch number: 11055B20A

Trifluorotoluene-F

6210797	91
6210798	86
6210799	88
6210800	84
6210801	84
6210802	84
Blank	84
LCS	106
LCSD	107

Limits: 63-135

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Request/Environmental Services Chain of Custody

For Lancaster Laboratories use only Acct. #: 12152

Group #: _____ Sample #: _____

Page 1 of 1 1233949 6210797-802

Client: <u>Kleinfelder</u>		Acct. #:		Matrix		Analyses Requested						For Lab Use Only							
Project Name/#: <u>Fairfax 26140</u>		PWSID #:		Potable NPDES		Preservation Codes						FSC:							
Project Manager: <u>Mark Steele</u>		P.O. #: <u>08531-117575</u>										SCR#:							
Sampler: <u>Charlie Low</u>		Quote #:										Preservation Codes H-HCl T-Thiosulfate H-HNO3 B-NaOH S-H2SO4 O-Other							
Name of State where samples were collected: <u>Virginia</u>												Temperature of samples upon receipt (if requested)							
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	BTEX, MTBE - 8260	H	H							Remarks	
PW-1 (65)	2/18/2011	920	X			X		6	X	X									
PW-1 (85)	2/18/2011	1000	X			X		6	X	X									
PW-1 (105)	2/18/2011	1040	X			X		6	X	X									
MW-12 (110)	2/18/2011	1225	X			X		6	X	X									
MW-12 (153)	2/18/2011	1305	X			X		6	X	X									
<u>Trip Blank</u>								<u>4</u>	<u>2</u>	<u>5</u>									
Turnaround Time Requested (TAT) (please circle): Normal Rush										Relinquished by:		Date	Time	Received by:		Date	Time		
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)										<u>[Signature]</u>		<u>2/18/11</u>	<u>1800</u>	<u>Fed Ex</u>					
Date results are needed: _____										Relinquished by:		Date	Time	Received by:		Date	Time		
Rush results requested by (please circle): Phone Fax <u>E-mail</u>										Relinquished by:		Date	Time	Received by:		Date	Time		
Phone #: <u>410-850-0404</u> Fax #: _____										Relinquished by:		Date	Time	Received by:		Date	Time		
E-mail address: <u>mcsteele@kleinfelder.com</u>										Relinquished by:		Date	Time	Received by:		Date	Time		
Data Package Options (please circle if required)					SDG Complete?					Relinquished by:		Date	Time	Received by:		Date	Time		
Type I (validation/NJ reg) <u>TX-TRRP-13</u>					Yes No					Relinquished by:		Date	Time	Received by:		Date	Time		
Type II (Tier II) <u>MA MCP CT RCP</u>										Relinquished by:		Date	Time	Received by:		Date	Time		
Type III (Reduced NJ)					State-specific QC (MS/MSD/Dup)? Yes No					Relinquished by:		Date	Time	Received by:		Date	Time		
Type IV (CLP SOW)					(if yes, indicated QC sample and submit triplicate volume)					Relinquished by:		Date	Time	Received by:		Date	Time		
Type VI (Raw Data Only)					Internal COC required? Yes No					Relinquished by:		Date	Time	Received by:		Date	Time		

Lancaster Laboratories, Inc. 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 717-656/2300

Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers	Inorganic Qualifiers
A TIC is a possible aldol-condensation product	B Value is $<$ CRDL, but \geq IDL
B Analyte was also detected in the blank	E Estimated due to interference
C Pesticide result confirmed by GC/MS	M Duplicate injection precision not met
D Compound quantitated on a diluted sample	N Spike sample not within control limits
E Concentration exceeds the calibration range of the instrument	S Method of standard additions (MSA) used for calculation
N Presumptive evidence of a compound (TICs only)	U Compound was not detected
P Concentration difference between primary and confirmation columns $>$ 25%	W Post digestion spike out of control limits
U Compound was not detected	* Duplicate analysis not within control limits
X,Y,Z Defined in case narrative	+ Correlation coefficient for MSA $<$ 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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