



October 20, 2016

Mrs. Jeannette DeBartolomeo
Maryland Department of the Environment (MDE)
Oil Control Program
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

Re: **Rebound Evaluation Completion**
Royal Farms Store # 96
500 Mechanics Valley Road
North East, MD
OCP Case No. 2011-0729-CE
MDE Facility No. 13326

Dear Mrs. DeBartolomeo,

Advantage Environmental Consultants, LLC (AEC), on behalf of Royal Farms / Two Farms, Inc. (Royal Farms), is presenting this data and analysis package for the twelfth month of the second round of the Rebound Evaluation following deactivation of the Vapor Extraction / Groundwater Extraction (VE/GE) remediation system located at 500 Mechanics Valley Road in North East, MD (i.e. the "Site"). Sampling procedures and analysis parameters used for this Rebound Evaluation are outlined in AEC's Rebound Evaluation Work Plan – Revised dated April 20, 2015 and approved by MDE in a letter dated May 21, 2015.

The results included in this report show that the rebound evaluation has been completed. According to AEC's approved Rebound Evaluation Work Plan – Revised "The rebound evaluation will be considered complete if the sampling and rebound evaluation activities continue for one year without the restart criteria being reached." This condition has been met.

Data for the evaluation was obtained by sampling eight select representative wells on a monthly basis for 6 months following operation of the VE/GE System and then quarterly for the remainder of the rebound period. Eight wells were utilized for the purposes of this evaluation: MW-8, RW-1, RW-2, RW-4, RW-6, RW-8, RW-11, and RW-12. A figure depicting the well locations is included as Figure 1 of Attachment A.

Established Baseline

The rebound in the selected wells was assessed for the following fuel constituents: benzene, total BTEX (benzene, toluene, ethylbenzene, and xylenes), and naphthalene. Baseline concentrations for these constituents in each respective well were established based on results reported from sampling events after the discovery of the release and prior to the start-up of the VE/GE system. The baseline concentrations for the rebound study are listed in Table 1 of Attachment B.

Evaluation Parameters

Laboratory results from each Rebound Evaluation event were compared to the baseline concentrations for benzene, total BTEX, and naphthalene in each well independently. A ratio was generated for each constituent in each well using the most recent laboratory results in relation to the

established baseline concentration. Rebound concentration ratios are listed in Table 1 of Attachment B. For analysis of the data obtained from each Rebound Evaluation sampling event, rebound response for benzene, total BTEX, and naphthalene in each well was classified under one of the following three cases:

- Case A – Little-to-No Rebound, defined as the rebound ratio less than 0.25 (25 percent);
- Case B – Gradual Rebound, defined as the rebound ratio greater than or equal to 0.25 percent but less than 0.75 ; and,
- Case C - Rapid Rebound, defined as the rebound ratio greater than or equal to 0.75 (75 percent).

If a rebound ratio for benzene, total BTEX, or naphthalene was greater than 75 percent (Case C - Rapid Rebound) in the same well during two consecutive sampling events, then the rebound test was terminated and the VE/GE system was restarted. Sampling results from the third month of the first round of the Rebound Evaluation met the restart criteria for a single constituent (naphthalene) in a single well (RW-11) and the VE/GE System was restarted for one month in August of 2015. Case C threshold concentrations for each constituent of concern in each selected well are included in Table 1 of Attachment B.

Sampling Events

The VE/GE system was shut down to begin the second round of the Rebound Evaluation on September 4, 2015. AEC performed sampling for the twelfth and final month of the Rebound Evaluation on August 15, 2016 along with the regular quarterly sampling event for the third quarter of 2016. Samples were collected using the purge and bail method in accordance with standard operating procedures for groundwater sampling at the Site.

Results

Sampling results indicate that the Case C criteria has not been met for any of the constituents of concern in any of the selected wells for a period on one year. Therefore, the Rebound Evaluation is complete. Rebound results for all wells are included in Table 1 of Attachment B. Laboratory analytical results and chain of custody documentation is included as Attachment C.

In addition to benzene, total BTEX, and naphthalene; methyl-tert butyl ether (MTBE) is also included in all laboratory analysis for this Rebound Evaluation at the request of MDE. MTBE was not reported above laboratory detection limits in samples from the selected rebound evaluation wells during this evaluation.

Upon acknowledgement of the completion of this Rebound Evaluation by MDE, AEC will begin preparation of a Subsurface Investigation Work Plan to assess soil conditions at the Site.

Sincerely,

Advantage Environmental Consultants, LLC

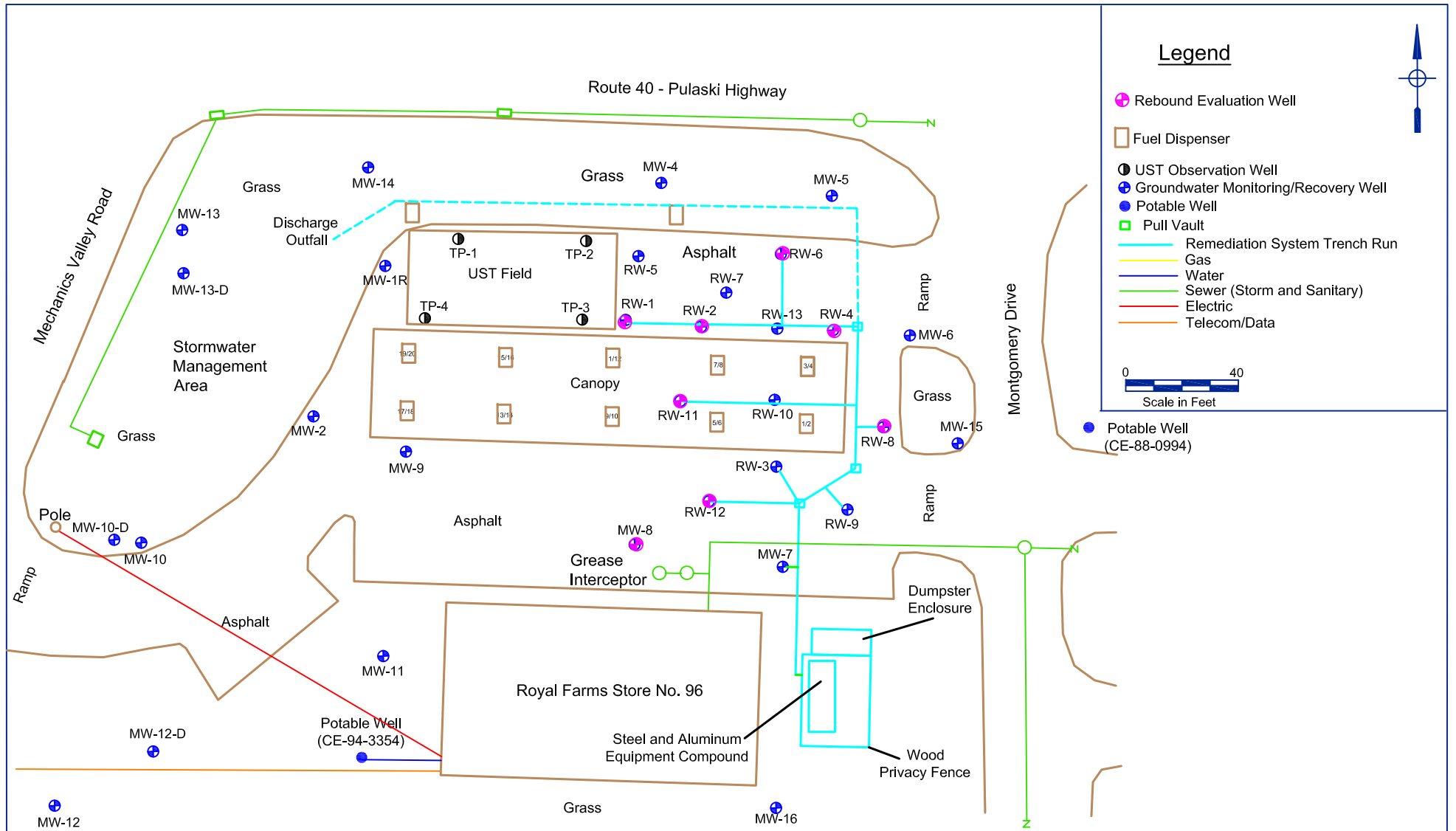


James Wolf
Project Manager

Attachments

cc: T. Ruszin

ATTACHMENT A



Advantage Environmental Consultants, LLC

8610 Washington Blvd. Suite 217
 Jessup, MD 20794
 Phone 301-776-0500 Fax 301-776-1123

Project No.: 05-056

Task No.: RF96

File: Site Features

Drawn by: JDW

Date: 2-16-2015

Revision No.: 2

Figure 1 - Site Features Map with Selected Rebound Evaluation Wells
 Royal Farms No. 96
 500 Mechanics Valley Road
 North East, MD

ATTACHMENT B

Table 1 - Rebound Evaluation Analysis Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C ₀):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C ₀)	Rebound Condition	Restart Criteria Met?	
MW-8	5/28/2015	Benzene	15	11.3	0.1	0.007	Case A	No	
	6/29/2015		15	11.3	0.1	0.007	Case A	No	
	7/29/2015		15	11.3	0.1	0.007	Case A	No	
	9/8/2015		15	11.3	6.8	0.453	Case B	No	
	10/6/2015		15	11.3	0.1	0.007	Case A	No	
	11/6/2015		15	11.3	0.1	0.007	Case A	No	
	12/9/2015		15	11.3	0.1	0.007	Case A	No	
	1/11/2016		15	11.3	0.1	0.007	Case A	No	
	2/17/2016		15	11.3	0.1	0.007	Case A	No	
	5/19/2016		15	11.3	0.1	0.007	Case A	No	
	8/15/2016		15	11.3	0.1	0.007	Case A	No	
	5/28/2015		Total BTEX	356.8	267.6	0.1	0.000	Case A	No
	6/29/2015			356.8	267.6	0.1	0.000	Case A	No
	7/29/2015			356.8	267.6	0.1	0.000	Case A	No
	9/8/2015			356.8	267.6	6.8	0.019	Case A	No
	10/6/2015	356.8		267.6	0.1	0.000	Case A	No	
	11/6/2015	356.8		267.6	0.1	0.000	Case A	No	
	12/9/2015	356.8		267.6	0.1	0.000	Case A	No	
	1/11/2016	356.8		267.6	0.1	0.000	Case A	No	
	2/17/2016	356.8		267.6	0.1	0.000	Case A	No	
	5/19/2016	356.8		267.6	0.1	0.000	Case A	No	
	8/15/2016	356.8		267.6	0.1	0.000	Case A	No	
	5/28/2015	Naphthalene		26	19.5	0.1	0.004	Case A	No
	6/29/2015			26	19.5	0.1	0.004	Case A	No
	7/29/2015			26	19.5	0.1	0.004	Case A	No
	9/8/2015			26	19.5	0.1	0.004	Case A	No
10/6/2015	26		19.5	0.1	0.004	Case A	No		
11/6/2015	26		19.5	0.1	0.004	Case A	No		
12/9/2015	26		19.5	0.1	0.004	Case A	No		
1/11/2016	26		19.5	0.1	0.004	Case A	No		
2/17/2016	26		19.5	0.1	0.004	Case A	No		
5/19/2016	26		19.5	0.1	0.004	Case A	No		
8/15/2016	26		19.5	0.1	0.004	Case A	No		
5/28/2015	MTBE		NA	NA	BDL	NA	NA	NA	
6/29/2015			NA	NA	BDL	NA	NA	NA	
7/29/2015			NA	NA	BDL	NA	NA	NA	
9/8/2015			NA	NA	BDL	NA	NA	NA	
10/6/2015		NA	NA	BDL	NA	NA	NA		
11/6/2015		NA	NA	BDL	NA	NA	NA		
12/9/2015		NA	NA	BDL	NA	NA	NA		
1/11/2016		NA	NA	BDL	NA	NA	NA		
2/17/2016		NA	NA	BDL	NA	NA	NA		
5/19/2016		NA	NA	BDL	NA	NA	NA		
8/15/2016		NA	NA	BDL	NA	NA	NA		
RW-1		5/29/2015	Benzene	959.3	719.5	0.1	0.000	Case A	No
		6/29/2015		959.3	719.5	0.1	0.000	Case A	No
		7/29/2015		959.3	719.5	0.1	0.000	Case A	No
		9/8/2015		959.3	719.5	0.1	0.000	Case A	No
	10/6/2015	959.3		719.5	0.1	0.000	Case A	No	
	11/6/2015	959.3		719.5	0.1	0.000	Case A	No	
	12/9/2015	959.3		719.5	0.1	0.000	Case A	No	
	1/11/2016	959.3		719.5	0.1	0.000	Case A	No	
	2/17/2016	959.3		719.5	0.1	0.000	Case A	No	
	5/20/2016	959.3		719.5	3.7	0.004	Case A	No	
	8/15/2016	959.3		719.5	47.8	0.050	Case A	No	
	5/29/2015	Total BTEX		205428.3	154071.2	0.1	0.000	Case A	No
	6/29/2015			205428.3	154071.2	0.1	0.000	Case A	No
	7/29/2015			205428.3	154071.2	0.1	0.000	Case A	No
	9/8/2015			205428.3	154071.2	0.1	0.000	Case A	No
10/6/2015	205428.3		154071.2	0.1	0.000	Case A	No		
11/6/2015	205428.3		154071.2	6.1	0.000	Case A	No		
12/9/2015	205428.3		154071.2	0.1	0.000	Case A	No		
1/11/2016	205428.3		154071.2	0.1	0.000	Case A	No		
2/17/2016	205428.3		154071.2	0.1	0.000	Case A	No		

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500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C ₀):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C ₀)	Rebound Condition	Restart Criteria Met?
	5/20/2016		205428.3	154071.2	15	0.000	Case A	No
	8/15/2016		205428.3	154071.2	253.3	0.001	Case A	No
	5/29/2015	Naphthalene	1351.8	1013.9	0.1	0.000	Case A	No
	6/29/2015		1351.8	1013.9	0.1	0.000	Case A	No
	7/29/2015		1351.8	1013.9	0.1	0.000	Case A	No
	9/8/2015		1351.8	1013.9	0.1	0.000	Case A	No
	10/6/2015		1351.8	1013.9	0.1	0.000	Case A	No
	11/6/2015		1351.8	1013.9	0.1	0.000	Case A	No
	12/9/2015		1351.8	1013.9	0.1	0.000	Case A	No
	1/11/2016		1351.8	1013.9	0.1	0.000	Case A	No
	2/17/2016		1351.8	1013.9	0.1	0.000	Case A	No
	5/20/2016		1351.8	1013.9	0.1	0.000	Case A	No
	8/15/2016		1351.8	1013.9	22.6	0.017	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-2	5/29/2015	Benzene	8731	6548.3	5.4	0.001	Case A	No
	6/29/2015		8731	6548.3	0.1	0.000	Case A	No
	7/29/2015		8731	6548.3	2.5	0.000	Case A	No
	9/8/2015		8731	6548.3	0.1	0.000	Case A	No
	10/6/2015		8731	6548.3	0.1	0.000	Case A	No
	11/6/2015		8731	6548.3	0.1	0.000	Case A	No
	12/9/2015		8731	6548.3	0.1	0.000	Case A	No
	1/11/2016		8731	6548.3	0.1	0.000	Case A	No
	2/17/2016		8731	6548.3	0.1	0.000	Case A	No
	5/20/2016		8731	6548.3	2.6	0.000	Case A	No
	8/15/2016		8731	6548.3	3.3	0.000	Case A	No
	5/29/2015	Total BTEX	35956	26967.0	41.9	0.001	Case A	No
	6/29/2015		35956	26967.0	116.6	0.003	Case A	No
	7/29/2015		35956	26967.0	53.9	0.001	Case A	No
	9/8/2015		35956	26967.0	0.1	0.000	Case A	No
	10/6/2015		35956	26967.0	0.1	0.000	Case A	No
	11/6/2015		35956	26967.0	0.1	0.000	Case A	No
	12/9/2015		35956	26967.0	0.1	0.000	Case A	No
	1/11/2016		35956	26967.0	0.1	0.000	Case A	No
	2/17/2016		35956	26967.0	0.1	0.000	Case A	No
	5/20/2016		35956	26967.0	2.6	0.000	Case A	No
	8/15/2016		35956	26967.0	3.3	0.000	Case A	No
	5/28/2015	Naphthalene	26	19.5	0.1	0.004	Case A	No
	6/29/2015		26	19.5	0.1	0.004	Case A	No
	7/29/2015		26	19.5	0.1	0.004	Case A	No
	9/8/2015		26	19.5	0.1	0.004	Case A	No
	10/6/2015		26	19.5	0.1	0.004	Case A	No
	11/6/2015		26	19.5	0.1	0.004	Case A	No
	12/9/2015		26	19.5	0.1	0.004	Case A	No
	1/11/2016		26	19.5	0.1	0.004	Case A	No
	2/17/2016		26	19.5	0.1	0.004	Case A	No
	5/20/2016		26	19.5	0.1	0.004	Case A	No
	8/15/2016		26	19.5	0.1	0.004	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA

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	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-4	5/29/2015	Benzene	14250	10687.5	139	0.010	Case A	No
	6/29/2015		14250	10687.5	215	0.015	Case A	No
	7/29/2015		14250	10687.5	203	0.014	Case A	No
	9/8/2015		14250	10687.5	6.4	0.000	Case A	No
	10/6/2015		14250	10687.5	13.1	0.001	Case A	No
	11/6/2015		14250	10687.5	5.1	0.000	Case A	No
	12/9/2015		14250	10687.5	5.9	0.000	Case A	No
	1/11/2016		14250	10687.5	243	0.017	Case A	No
	2/17/2016		14250	10687.5	209	0.015	Case A	No
	5/20/2016		14250	10687.5	175	0.012	Case A	No
	8/15/2016		14250	10687.5	60.4	0.004	Case A	No
	5/29/2015	Total BTEX	59880	44910.0	2397	0.040	Case A	No
	6/29/2015		59880	44910.0	5661	0.095	Case A	No
	7/29/2015		59880	44910.0	4683	0.078	Case A	No
	9/8/2015		59880	44910.0	187.7	0.003	Case A	No
	10/6/2015		59880	44910.0	287	0.005	Case A	No
	11/6/2015		59880	44910.0	54.0	0.001	Case A	No
	12/9/2015		59880	44910.0	59.1	0.001	Case A	No
	1/11/2016		59880	44910.0	3952.0	0.066	Case A	No
	2/17/2016		59880	44910.0	4964.0	0.083	Case A	No
	5/20/2016		59880	44910.0	4354.0	0.073	Case A	No
	8/15/2016		59880	44910.0	580.4	0.010	Case A	No
	5/29/2015	Naphthalene	1629	1221.8	81.9	0.050	Case A	No
	6/29/2015		1629	1221.8	202	0.124	Case A	No
	7/29/2015		1629	1221.8	388	0.238	Case A	No
	9/8/2015		1629	1221.8	14.9	0.009	Case A	No
	10/6/2015		1629	1221.8	17.3	0.011	Case A	No
	11/6/2015		1629	1221.8	8.6	0.005	Case A	No
	12/9/2015		1629	1221.8	10.1	0.006	Case A	No
	1/11/2016		1629	1221.8	222	0.136	Case A	No
	2/17/2016		1629	1221.8	133	0.082	Case A	No
	5/20/2016		1629	1221.8	265	0.163	Case A	No
	8/15/2016		1629	1221.8	146	0.090	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-6	5/29/2015	Benzene	1378	1033.5	0.1	0.000	Case A	No
	6/29/2015		1378	1033.5	0.1	0.000	Case A	No
	7/29/2015		1378	1033.5	0.1	0.000	Case A	No
	9/8/2015		1378	1033.5	0.1	0.000	Case A	No
	10/6/2015		1378	1033.5	0.1	0.000	Case A	No
	11/6/2015		1378	1033.5	0.1	0.000	Case A	No
	12/9/2015		1378	1033.5	0.1	0.000	Case A	No
	1/11/2016		1378	1033.5	0.1	0.000	Case A	No
	2/17/2016		1378	1033.5	0.1	0.000	Case A	No
	5/20/2016		1378	1033.5	0.1	0.000	Case A	No
	8/15/2016		1378	1033.5	0.1	0.000	Case A	No
	5/29/2015	Total BTEX	7674.6	5756.0	0.1	0.000	Case A	No
	6/29/2015		7674.6	5756.0	0.1	0.000	Case A	No
	7/29/2015		7674.6	5756.0	2.6	0.000	Case A	No
	9/8/2015		7674.6	5756.0	77.2	0.010	Case A	No
	10/6/2015		7674.6	5756.0	0.1	0.000	Case A	No

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500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C ₀):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C ₀)	Rebound Condition	Restart Criteria Met?
	11/6/2015		7674.6	5756.0	11.0	0.001	Case A	No
	12/9/2015		7674.6	5756.0	0.1	0.000	Case A	No
	1/11/2016		7674.6	5756.0	0.1	0.000	Case A	No
	2/17/2016		7674.6	5756.0	0.1	0.000	Case A	No
	5/20/2016		7674.6	5756.0	0.1	0.000	Case A	No
	8/15/2016		7674.6	5756.0	0.1	0.000	Case A	No
	5/29/2015	Naphthalene	400.3	300.2	0.1	0.000	Case A	No
	6/29/2015		400.3	300.2	0.1	0.000	Case A	No
	7/29/2015		400.3	300.2	0.1	0.000	Case A	No
	9/8/2015		400.3	300.2	14.3	0.036	Case A	No
	10/6/2015		400.3	300.2	0.1	0.000	Case A	No
	11/6/2015		400.3	300.2	3.8	0.009	Case A	No
	12/9/2015		400.3	300.2	0.1	0.000	Case A	No
	1/11/2016		400.3	300.2	0.1	0.000	Case A	No
	2/17/2016		400.3	300.2	0.1	0.000	Case A	No
	5/20/2016		400.3	300.2	0.1	0.000	Case A	No
	8/15/2016		400.3	300.2	2.5	0.006	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-8	5/29/2015	Benzene	2460	1845.0	0.1	0.000	Case A	No
	6/29/2015		2460	1845.0	0.1	0.000	Case A	No
	7/29/2015		2460	1845.0	0.1	0.000	Case A	No
	9/8/2015		2460	1845.0	0.1	0.000	Case A	No
	10/6/2015		2460	1845.0	0.1	0.000	Case A	No
	11/6/2015		2460	1845.0	0.1	0.000	Case A	No
	12/9/2015		2460	1845.0	0.1	0.000	Case A	No
	1/11/2016		2460	1845.0	0.1	0.000	Case A	No
	2/17/2016		2460	1845.0	0.1	0.000	Case A	No
	5/20/2016		2460	1845.0	0.1	0.000	Case A	No
	8/15/2016		2460	1845.0	0.1	0.000	Case A	No
	5/29/2015	Total BTEX	10688	8016.0	1174.8	0.110	Case A	No
	6/29/2015		10688	8016.0	683.2	0.064	Case A	No
	7/29/2015		10688	8016.0	592.2	0.055	Case A	No
	9/8/2015		10688	8016.0	0.1	0.000	Case A	No
	10/6/2015		10688	8016.0	0.1	0.000	Case A	No
	11/6/2015		10688	8016.0	56	0.005	Case A	No
	12/9/2015		10688	8016.0	84.3	0.008	Case A	No
	1/11/2016		10688	8016.0	70.4	0.007	Case A	No
	2/17/2016		10688	8016.0	312.8	0.029	Case A	No
	5/20/2016		10688	8016.0	122	0.011	Case A	No
	8/15/2016		10688	8016.0	34.9	0.003	Case A	No
	5/29/2015	Naphthalene	100	75.0	19.0	0.190	Case A	No
	6/29/2015		100	75.0	20.4	0.204	Case A	No
	7/29/2015		100	75.0	20.8	0.208	Case A	No
	9/8/2015		100	75.0	0.1	0.001	Case A	No
	10/6/2015		100	75.0	0.1	0.001	Case A	No
	11/6/2015		100	75.0	2.3	0.023	Case A	No
	12/9/2015		100	75.0	2.7	0.027	Case A	No
	1/11/2016		100	75.0	3.9	0.039	Case A	No
	2/17/2016		100	75.0	13.3	0.133	Case A	No
	5/20/2016		100	75.0	16.5	0.165	Case A	No
	8/15/2016		100	75.0	8.5	0.085	Case A	No
	5/29/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA

Table 1 - Rebound Evaluation Analysis Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C ₀):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C ₀)	Rebound Condition	Restart Criteria Met?
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-11	5/29/2015	Benzene	5065	3798.8	278	0.055	Case A	No
	6/29/2015		5065	3798.8	193	0.038	Case A	No
	7/29/2015		5065	3798.8	265	0.052	Case A	No
	9/8/2015		5065	3798.8	206	0.041	Case A	No
	10/6/2015		5065	3798.8	170	0.034	Case A	No
	11/6/2015		5065	3798.8	134	0.026	Case A	No
	12/9/2015		5065	3798.8	100	0.020	Case A	No
	1/11/2016		5065	3798.8	213	0.042	Case A	No
	2/17/2016		5065	3798.8	248	0.049	Case A	No
	5/20/2016		5065	3798.8	209	0.041	Case A	No
	8/15/2016		5065	3798.8	85.2	0.017	Case A	No
	5/29/2015	Total BTEX	25170	18877.5	1550	0.062	Case A	No
	6/29/2015		25170	18877.5	4067	0.162	Case A	No
	7/29/2015		25170	18877.5	2609	0.104	Case A	No
	9/8/2015		25170	18877.5	1991	0.079	Case A	No
	10/6/2015		25170	18877.5	2843	0.113	Case A	No
	11/6/2015		25170	18877.5	1225	0.049	Case A	No
	12/9/2015		25170	18877.5	1199	0.048	Case A	No
	1/11/2016		25170	18877.5	2124	0.084	Case A	No
	2/17/2016		25170	18877.5	3049	0.121	Case A	No
	5/20/2016		25170	18877.5	2176	0.086	Case A	No
	8/15/2016		25170	18877.5	1225.2	0.049	Case A	No
	5/29/2015	Naphthalene	304.5	228.4	158	0.519	Case B	No
	6/29/2015		304.5	228.4	283	0.929	Case C	No
	7/29/2015		304.5	228.4	297	0.975	Case C	YES
	9/8/2015		304.5	228.4	92.6	0.304	Case B	No
	10/6/2015		304.5	228.4	184	0.604	Case B	No
	11/6/2015		304.5	228.4	95.9	0.315	Case B	No
	12/9/2015		304.5	228.4	59.8	0.196	Case A	No
	1/11/2016		304.5	228.4	162	0.532	Case B	No
	2/17/2016		304.5	228.4	143	0.470	Case B	No
	5/20/2016		304.5	228.4	143	0.470	Case B	No
	8/15/2016		304.5	228.4	106	0.348	Case B	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/20/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA
RW-12	5/29/2015	Benzene	184	138.0	0.1	0.001	Case A	No
	6/29/2015		184	138.0	0.1	0.001	Case A	No
	7/29/2015		184	138.0	0.1	0.001	Case A	No
	9/8/2015		184	138.0	0.1	0.001	Case A	No
	10/6/2015		184	138.0	0.1	0.001	Case A	No
	11/6/2015		184	138.0	0.1	0.001	Case A	No
	12/9/2015		184	138.0	0.1	0.001	Case A	No
	1/11/2016		184	138.0	0.1	0.001	Case A	No
	2/17/2016		184	138.0	0.1	0.001	Case A	No
	5/19/2016		184	138.0	0.1	0.001	Case A	No
	8/15/2016		184	138.0	0.1	0.001	Case A	No
	5/29/2015	Total BTEX	2045.9	1534.4	0.1	0.000	Case A	No

Table 1 - Rebound Evaluation Analysis Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C ₀):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C ₀)	Rebound Condition	Restart Criteria Met?
	6/29/2015		2045.9	1534.4	0.1	0.000	Case A	No
	7/29/2015		2045.9	1534.4	0.1	0.000	Case A	No
	9/8/2015		2045.9	1534.4	0.1	0.000	Case A	No
	10/6/2015		2045.9	1534.4	0.1	0.000	Case A	No
	11/6/2015		2045.9	1534.4	0.1	0.000	Case A	No
	12/9/2015		2045.9	1534.4	0.1	0.000	Case A	No
	1/11/2016		2045.9	1534.4	0.1	0.000	Case A	No
	2/17/2016		2045.9	1534.4	0.1	0.000	Case A	No
	5/19/2016		2045.9	1534.4	0.1	0.000	Case A	No
	8/15/2016		2045.9	1534.4	0.1	0.000	Case A	No
	5/29/2015	Naphthalene	26.3	19.7	0.1	0.004	Case A	No
	6/29/2015		26.3	19.7	0.1	0.004	Case A	No
	7/29/2015		26.3	19.7	0.1	0.004	Case A	No
	9/8/2015		26.3	19.7	0.1	0.004	Case A	No
	10/6/2015		26.3	19.7	0.1	0.004	Case A	No
	11/6/2015		26.3	19.7	0.1	0.004	Case A	No
	12/9/2015		26.3	19.7	0.1	0.004	Case A	No
	1/11/2016		26.3	19.7	0.1	0.004	Case A	No
	2/17/2016		26.3	19.7	0.1	0.004	Case A	No
	5/19/2016		26.3	19.7	0.1	0.004	Case A	No
	8/15/2016		26.3	19.7	0.1	0.004	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
	5/19/2016		NA	NA	BDL	NA	NA	NA
	8/15/2016		NA	NA	BDL	NA	NA	NA

All results in micrograms per liter (µg/L)

VE/GE System restart is necessary if an analyte in a single well meets the Case C criteria during two consecutive sampling events

Case C - Rapid Rebound Criteria (Rebound ratio greater than or equal to 0.75)

Case B - Gradual Rebound Criteria (Rebound ratio between 0.25 and 0.75)

Case A - Little-to-No Rebound Scenario (Rebound ratio less than or equal to 0.25)

Dotted line indicates a period of VE/GE System operation between the above and below sampling dates.

0.1 - placeholder for a result reported below detection limits for computational purposes

B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene

MTBE = Methyl-tert-butyl-ether

NA - MTBE concentrations are monitored, but there is no associated restart criteria

BDL - MTBE result below laboratory detection limits

ATTACHMENT C

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: RF-096

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 08/24/16 13:43

Advantage Environmental Consultants

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:	MW-8	RW-1	RW-12	RW-6	RW-2	RW-8
LAB SAMPLE ID:	6081511-01	6081511-02	6081511-03	6081511-04	6081511-05	6081511-06
SAMPLE DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water	Water	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)

	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	ug/L	<20.0	140	<20.0	336	<20.0	<20.0
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzene	ug/L	<2.0	47.8	<2.0	<2.0	3.3 [2]	<2.0
Bromobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromodichloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromomethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
2-Butanone (MEK)	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon disulfide	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromomethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 08/24/16 13:43

Advantage Environmental Consultants

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:	MW-8	RW-1	RW-12	RW-6	RW-2	RW-8
LAB SAMPLE ID:	6081511-01	6081511-02	6081511-03	6081511-04	6081511-05	6081511-06
SAMPLE DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water	Water	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)

1,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethylbenzene	ug/L	<2.0	5.4	<2.0	<2.0	<2.0	18.5
Hexachlorobutadiene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Hexanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	ug/L	<2.0	22.6	<2.0	2.5 [2]	<2.0	8.5
n-Propylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene	ug/L	<2.0	97.9	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene	ug/L	<2.0	22.0	<2.0	3.5 [2]	<2.0	<2.0
1,3,5-Trimethylbenzene	ug/L	<2.0	11.2	<2.0	<2.0	<2.0	2.2 [2]
Vinyl chloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	<2.0	70.3	<2.0	<2.0	<2.0	16.4
m- & p-Xylenes	ug/L	<2.0	31.9	<2.0	<2.0	<2.0	8.0
1,2-Dichloroethane-d4	[surr]	106%	109%	107%	105%	108%	105%

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

Analytical Results

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VELAP ID 460040

Project: RF-096

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 08/24/16 13:43

Advantage Environmental Consultants

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:	MW-8	RW-1	RW-12	RW-6	RW-2	RW-8
LAB SAMPLE ID:	6081511-01	6081511-02	6081511-03	6081511-04	6081511-05	6081511-06
SAMPLE DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water	Water	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)

Toluene-d8	[surr]	<u>102%</u>	<u>102%</u>	<u>102%</u>	<u>101%</u>	<u>101%</u>	<u>103%</u>
4-Bromofluorobenzene	[surr]	<u>103%</u>	<u>107%</u>	<u>104%</u>	<u>104%</u>	<u>105%</u>	<u>108%</u>

GASOLINE RANGE ORGANICS BY EPA 8015B (Water)

Gasoline-Range Organics	ug/L	<100	491	<100	176	<100	139
a,a,a-Trifluorotoluene	[surr]	<u>101%</u>	<u>102%</u>	<u>101%</u>	<u>101%</u>	<u>101%</u>	<u>101%</u>

DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)

Diesel-Range Organics	mg/L	<0.20	0.63	<0.20	0.69	<0.20	<0.19
o-Terphenyl	[surr]	<u>82.9%</u>	<u>77.5%</u>	<u>84.7%</u>	<u>91.5%</u>	<u>73.4%</u>	<u>77.3%</u>

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2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: RF-096

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 08/24/16 13:43

Advantage Environmental Consultants

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:	RW-4	RW-11	RW-11
LAB SAMPLE ID:	6081511-07	6081511-08	6081511-08RE1
SAMPLE DATE:	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)

Compound	Units	RW-4	RW-11
Acetone	ug/L	<10.0	<30.0
tert-Amyl alcohol (TAA)	ug/L	32.6	100
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<6.0
Benzene	ug/L	60.4	85.2
Bromobenzene	ug/L	<2.0	<6.0
Bromochloromethane	ug/L	<2.0	<6.0
Bromodichloromethane	ug/L	<2.0	<6.0
Bromoform	ug/L	<2.0	<6.0
Bromomethane	ug/L	<5.0	<15.0
tert-Butanol (TBA)	ug/L	<15.0	<45.0
2-Butanone (MEK)	ug/L	<10.0	<30.0
n-Butylbenzene	ug/L	<2.0	<6.0
sec-Butylbenzene	ug/L	<2.0	<6.0
tert-Butylbenzene	ug/L	<2.0	<6.0
Carbon disulfide	ug/L	<2.0	<6.0
Carbon tetrachloride	ug/L	<2.0	<6.0
Chlorobenzene	ug/L	<2.0	<6.0
Chloroethane	ug/L	<5.0	<15.0
Chloroform	ug/L	<2.0	<6.0
Chloromethane	ug/L	<5.0	<15.0
2-Chlorotoluene	ug/L	<2.0	<6.0
4-Chlorotoluene	ug/L	<2.0	<6.0
Dibromochloromethane	ug/L	<2.0	<6.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<6.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<6.0
Dibromomethane	ug/L	<2.0	<6.0
1,2-Dichlorobenzene	ug/L	<2.0	<6.0
1,3-Dichlorobenzene	ug/L	<2.0	<6.0
1,4-Dichlorobenzene	ug/L	<2.0	<6.0
Dichlorodifluoromethane	ug/L	<2.0	<6.0
1,1-Dichloroethane	ug/L	<2.0	<6.0
1,2-Dichloroethane	ug/L	<2.0	<6.0
1,1-Dichloroethene	ug/L	<2.0	<6.0
cis-1,2-Dichloroethene	ug/L	<2.0	<6.0
trans-1,2-Dichloroethene	ug/L	<2.0	<6.0
Dichlorofluoromethane	ug/L	<2.0	<6.0

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CLIENT SAMPLE ID:	RW-4	RW-11	RW-11
LAB SAMPLE ID:	6081511-07	6081511-08	6081511-08RE1
SAMPLE DATE:	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)

1,2-Dichloropropane	ug/L	<2.0	<6.0
1,3-Dichloropropane	ug/L	<2.0	<6.0
2,2-Dichloropropane	ug/L	<2.0	<6.0
1,1-Dichloropropene	ug/L	<2.0	<6.0
cis-1,3-Dichloropropene	ug/L	<2.0	<6.0
trans-1,3-Dichloropropene	ug/L	<2.0	<6.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<6.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<6.0
Ethylbenzene	ug/L	65.3	327
Hexachlorobutadiene	ug/L	<2.0	<6.0
2-Hexanone	ug/L	<10.0	<30.0
Isopropylbenzene (Cumene)	ug/L	5.4	28.2
4-Isopropyltoluene	ug/L	2.5 [2]	<6.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<6.0
4-Methyl-2-pentanone	ug/L	<10.0	<30.0
Methylene chloride	ug/L	<10.0	<30.0
Naphthalene	ug/L	146	106
n-Propylbenzene	ug/L	9.0	65.9
Styrene	ug/L	<2.0	<6.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<6.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<6.0
Tetrachloroethene	ug/L	<2.0	<6.0
Toluene	ug/L	42.7	169
1,2,3-Trichlorobenzene	ug/L	<2.0	<6.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<6.0
1,1,1-Trichloroethane	ug/L	<2.0	<6.0
1,1,2-Trichloroethane	ug/L	<2.0	<6.0
Trichloroethene	ug/L	<2.0	<6.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<6.0
1,2,3-Trichloropropane	ug/L	<2.0	<6.0
1,2,4-Trimethylbenzene	ug/L	577 [1]	583
1,3,5-Trimethylbenzene	ug/L	52.7	58.2
Vinyl chloride	ug/L	<2.0	<6.0
o-Xylene	ug/L	150	172
m- & p-Xylenes	ug/L	262	472
1,2-Dichloroethane-d4	[surr]	106%	107%

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SAMPLE DATE:	08/15/16	08/15/16	08/15/16
RECEIVED DATE:	08/15/16	08/15/16	08/15/16
MATRIX	Units	Water	Water

VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)

Toluene-d8	[surr]	<u>101%</u>	<u>102%</u>
4-Bromofluorobenzene	[surr]	<u>105%</u>	<u>106%</u>

GASOLINE RANGE ORGANICS BY EPA 8015B (Water)

Gasoline-Range Organics	ug/L	3030	4570
a,a,a-Trifluorotoluene	[surr]	<u>102%</u>	<u>102%</u>

DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)

Diesel-Range Organics	mg/L	4.97	1.91
o-Terphenyl	[surr]	<u>101%</u>	<u>92.6%</u>

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

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CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.
 1500 Caton Center Drive, Suite G
 Baltimore, MD 21227
 410-247-7600 • Fax 410-247-7602
 labman@mdspectral.com

Matrix Codes: NW (nonpotable water)
 PW (potable water)

Preservative: 1+1
 HCL, H₂SO₄,
 Methanol,
 Na₂S₂O₃, NaHCO₃

MSS Lab ID

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Analysis Requested	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
MW-8	8/15/16	15:18	NW			4	VOCs 8260 TPH DR0 8015 TPH GR0 8015			
RW-1		15:30								
RW-12		15:42								
RW-6		15:52								
RW-2		16:02								
RW-8		16:10								
RW-4		16:18								
RW-11		16:25								

Company Name: **AEC**
 Project Manager: **J. Stein**
 Project Name: **RF-96**
 Project ID: **05-056-RF96**
 Sampler(s): **S. Dessel/J. Wolf**
 P.O. Number: **05-056-RF96**

Relinquished by: (Signature) *Stephen Dessel*
 (Printed) **Stephen Dessel**
 Date/Time: **8/15/16**
 Received by: (Signature) *[Signature]*
 (Printed) _____
 Date/Time: _____

Relinquished by: (Signature) _____
 (Printed) _____
 Date/Time: _____

Received by: (Signature) _____
 (Printed) _____
 Date/Time: _____

Lab Use:
 Temp: **4.0 °C**
 Received on Ice
 Received same day
 Preservation Appropriate

Sample Disposal:
 Return to Client
 Disposal by lab
 Archive for _____ days

Turn Around Time:
 Normal (7 day)
 5 day
 4 day
 3 day
 Rush (2 day)
 Next Day
 Other: _____
 Specific Due Date: _____

Special Instructions/QC Requirements & Comments:
Results to: jstein jwolf
jshedy sassel

Delivery Method:
 Courier
 Client
 UPS
 FedEx
 USPS
 Other: _____