Advantage Environmental Consultants, LLC

Surfactant Injection Work Plan Implementation Report

Gasoline Fueling Station – Royal Farms #001
2620 Mountain Road, Joppa, Harford County, MD 21085
MDE Case No. 2005-0357-HA
MDE Facility ID 3965

AEC Project Number: 05-056RF001

Prepared for:
Maryland Department of the Environment
Oil Control Program
Attn: Jeannette DeBartolomeo
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

And

Royal Farms / Two Farms, Inc.
3611 Roland Avenue
Baltimore, Maryland 21211

Prepared by:
Advantage Environmental Consultants, LLC
8610 Washington Boulevard, Suite 217
Jessup, Maryland 20794
Phone – (301)-776-0500
Fax – (301)-776-1123

September 23, 2011

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Surfactant Injection Work Plan Implementation Report

Prepared by: Thomas E. Ruszin III
Title: Staff Scientist

Reviewed by: Jeffery S. Stein, P.G.
Title: Principal

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Project Introduction 1
1.2 Background 1

2.0 PROCEDURES 3
2.1 Monitoring Well Installation Procedures 3
2.2 Elevation Survey and Groundwater Level Gauging Procedures 3
2.3 Remedial Action Means and Methods 4
2.3.1 Remediation Sequence 4
2.3.2 EFR Methodology 4
2.3.3 Injection Methodology 5
2.3.4 Performance Monitoring 5
2.4 Waste Management Procedures 5

3.0 INVESTIGATION ACTIVITY RESULTS 7
3.1 Soil Sample Analytical Results 7
3.2 Pre-Injection Groundwater Sample Analytical Results 7
3.3 Pre-Injection EFR Results 7
3.4 Surfactant Injection Results 8
3.5 Post-Injection EFR Results 8
3.6 Daily Groundwater Monitoring Results 9
3.7 Post-Injection Groundwater Sample Analytical Results 9

4.0 CONCLUSIONS AND RECOMMENDATIONS 10

APPENDICES
APPENDIX A FIGURES
APPENDIX B TABLES
APPENDIX C BORING LOGS/MONITORING WELL COMPLETION REPORTS
APPENDIX D OIL EATER CLEANER/DEGREASER MATERIAL SAFETY DATA SHEET
APPENDIX E WASTE DISPOSAL MANIFESTS
APPENDIX F LABORATORY ANALYICAL REPORT AND CHAIN-OF-CUSTODY

FIGURES
FIGURE 1: SITE VICINITY MAP
FIGURE 2: SITE MAP
FIGURE 3: GROUNDWATER GRADIENT MAP
FIGURE 4: SOIL QUALITY MAP
FIGURE 5: PRE-INJECTION GROUNDWATER QUALITY MAP
FIGURE 6: POST INJECTION GROUNDWATER QUALITY MAP

1.0 INTRODUCTION

1.1 Project Introduction

Advantage Environmental Consultants, LLC (AEC) was authorized by Royal Farms/Two Farms, Inc., to prepare this Surfactant Injection Work Plan Implementation Report for Royal Farms Gasoline Fueling Station No. 1 located at 2620 Mountain Road in Joppa, Harford County, Maryland. A Site Vicinity Map and Site Map are provided in Appendix A, as Figures 1 and 2, respectively.

The work discussed herein was performed in order to satisfy certain requirements outlined in Maryland Department of the Environment (MDE) correspondence to Two Farms, Inc., dated April 6, 2011. AEC prepared and submitted a Surfactant Injection Work Plan, dated May 13, 2011 to the MDE for review and approval prior to commencement of work. The MDE approved of the work plan in correspondence to Two Farms, Inc., dated June 21, 2011.

The work plan proposed to remove residual liquid phase hydrocarbons (LPH) from the tank pit area of the Site by injecting surfactant into the tank pit monitoring wells in conjunction with pre- and post-injection enhanced fluid recovery (EFR) events. In addition, AEC installed two additional monitoring wells in the vicinity of the tank field in order to assist in determining the effectiveness of remedial activities at the Site, and to ensure that dissolved phase impact is not migrating.

1.2 Background

The tank pit backfill consists of highly permeable pea-gravel which extends to a depth of approximately 16 feet below ground surface (bgs) which is the average depth of the tank pit observation wells. The soils surrounding the tank pit (i.e., native material) are dominated by fine grained soils (soils composed of mostly clay and silt). As described on the various historical boring and well logs, the fine grained soils were typically noted as clay dominated, with fewer occurrences of silt dominated matrices.

Depth to groundwater measurements have been taken regularly throughout the course of the various investigations. The depth to water in the tank pit wells has ranged from approximately 1 to 8 feet bgs with recent gauging data indicating an average depth of 2.8 feet bgs (April 2011). The depth to water in the native material outside of the tank pit has ranged from approximately 8 to 20 feet bgs with recent gauging data indicating an average depth of 15 feet bgs (April 2011). Data from MW-3 has not been used since the soil vapor extraction (SVE) system caused significant upwelling in the water table in that area. Based on the significant difference in depth to water measurements in the tank pit and the surrounding soil it was apparent that the tank pit pea gravel serves as a water “reservoir” or perched area and is in limited hydraulic connection with the underlying natural material.

Based on hydraulic testing performed in 2007, during tank pit dewatering operations, water stored within the tank pit’s pea gravel pore space is fairly easy to recover using

either a vac-truck or submersible pump. Flow rates as high as 70 gallons per minute (gpm) were achieved and typically resulted in the dewatering of the tank pit well within 35 to 90 minutes. Recharge of the tank pit was significantly slower. The average recharge rate into the tank pit from the surrounding soil was approximately 0.75 feet of water level recovery per hour. Recharge to the original static shallow levels (approximately 5 feet bgs) never happened during the 2007 hydraulic testing since no significant precipitation event occurred and the static depth to water outside of the tank pit was approximately 15 feet bgs. This slow recharge rate is consistent with the assumed low transmissivity of the surrounding fine grained soils.

Based on a review of historical liquid level gauging data generated throughout the Site, the LPH smear zone resides between 2 and 10 feet bgs and appears to be localized to the tank pit. The majority of the LPH observations in the tank pit wells have occurred between a depth interval of 5 to 8 feet bgs. Table 1 in Appendix B provides current and historical groundwater elevation data.

In addition, based on a review of the historical water quality data it appears that the bulk of the dissolved phase impact has not migrated out of the tank pit. The difference in dissolved phase concentrations of benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl-tert butyl ether (MTBE) in the tank pit wells (TP-1 and TP-2) and the monitoring wells (MW-1 through MW-3) is significant. This finding is consistent with the hydrogeologic conditions of the Site (i.e., coarse grained tank pit with a high water table situated in fine grained material with a low water table). Table 2 in Appendix B provides current and historical groundwater quality data.

Using the dimensions of the saturated zone of the tank pit (27 feet by 35 feet by 12 feet deep) a volume estimate of 11,340 cubic feet or 85,000 gallons was estimated. Subtracting the volume of the tank system (35,000 gallon capacity) and backfill (pea gravel with an estimated porosity of 20%), a pore space volume estimate of 10,000 gallons was calculated.

2.0 PROCEDURES

2.1 Monitoring Well Installation Procedures

On June 10, 2011, two monitoring well borings were advanced using hollow stem auger (HSA) methods east and northwest of the tank field. Monitoring well locations are depicted on Figure 2 of Appendix A. Public utility clearances were obtained prior to the initiation of the sampling program. This entailed contacting Miss Utility at least 72 hours prior to drilling activities. Soil samples were obtained using a split-spoon sampler and Standard Penetration Testing (SPT) procedures. The sampling interval for the borings was on 5-feet centers from the surface to the termination depth of each boring. An AEC Field Geologist logged the geologic conditions of the borings and field screened soil cores for volatile organic compounds (VOCs) using a photoionization detector (PID). Copies of the boring logs for this investigation are included in Appendix C.

One soil sample was collected from each boring based on the highest PID response, visual/olfactory evidence of impact, or the zone immediately above the water table. The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) using Environmental Protection Agency (EPA) Analytical Method 8015B, and VOCs, including fuel oxygenates, via EPA Analytical Method 8260.

The wells were constructed using two-inch diameter polyvinyl chloride (PVC) slotted screen and increaser. The screen length for the monitoring wells was approximately 25 feet and the increaser length was approximately 5 feet. A sand filter pack was placed to one-foot above the top of the screen, and a one-foot thick bentonite seal was placed above the sand by dropping bentonite pellets into the annular space and hydrating in place. The remainder of the annular space above the bentonite seal was grouted to the surface and a flush-mounted, bolt-down, steel manhole set in concrete was installed at the surface. The PVC well head was secured with a locking cap. All monitoring well installation activities were performed by a State of Maryland-licensed Well Driller. Well Completion Reports are included in Appendix C.

The monitoring wells were developed using surge block and aggressive bailing techniques two weeks following installation. At least five well volumes of water were removed from each well as part of the development process. Neither of the newly installed monitoring well was bailed dry.

Prior to arriving at the Site and between each soil boring, all hand augers, core barrels, cutting shoes, probe rods, tips, sleeves, pushrods, samplers, tools, and other down hole equipment were cleaned using a water rinse. Fuel, lubricants, and other similar substances will be handled in a manner consistent with accepted safety procedures and standard operating practices.

2.2 Elevation Survey and Groundwater Level Gauging Procedures

The relative elevations of the top of the well casings for the monitoring wells were

determined to within 0.01-feet using a rod and transit. The wells were surveyed to a known fixed point elevation relative to mean sea level (i.e., benchmark). The benchmark used for this survey was the southwest corner of the dispenser island. According to the Site & Stormwater Management Plan, dated May 22, 1995, the elevation of this point is 185 feet above mean sea level (MSL). Future monitoring wells, if any, can be surveyed relative to the benchmark and incorporated into the monitoring well network. Groundwater levels within each monitoring well were measured using an electronic oil-water interface probe accurate to 0.01-feet. The interface probe was cleaned (Liquinox and water rinse) prior to use in each well. A Groundwater Gradient Map indicating groundwater flow direction on September 8, 2011 is included as Figure 3 in Appendix A.

2.3 Remedial Action Means and Methods

Based on the hydrogeologic features of the tank pit and the surrounding formation, and distribution of the residual and dissolved phase impact, AEC developed a surfactant injection program which addressed residual LPH within the tank pit. The following describes the sequence of events, provides a detailed discussion of the means and methods involved in the surfactant injection, and the performance monitoring program used to monitor the effectiveness of the effort.

2.3.1 Remediation Sequence

The sequence of events during remediation activities was as follows:

1. Gauge and sample the groundwater monitoring wells and tank pit observation wells associated with the Site;
2. Perform pre-injection EFR activities on the tank pit observation wells in order to substantially dewater the tank pit;
3. Inject surfactant solution into tank pit via the tank pit observation wells;
4. Perform post-injection EFR activities on the tank pit observation wells in order to substantially dewater the tank pit; and,
5. Conduct performance monitoring on the groundwater monitoring wells and tank pit observation wells.

2.3.2 EFR Methodology

The tank pit was substantially dewatered using EFR techniques. This consisted of manifolding the two tank pit observation wells into a common header attached to a vac-truck. A 1-inch diameter stinger-tube was lowered to the bottom of each well. The stinger-tube was sealed at the well head with a rubber fernco boot to allow for both fluid and vapor extraction. Depths to water measurements were periodically taken in the monitoring wells during the EFR activities. A summary of data collected during the pre-injection EFR activities is provided in Section 3.3 bellow. A summary of the data collected during the post-injection EFR activities is included in Section 3.5 below. Liquids generated as part of the EFR activities were containerized and disposed of via

vac-truck. This EFR process occurred immediately before the surfactant injection activities, and was repeated after surfactant resided in the tank pit for at least 12 hours.

2.3.3 Injection Methodology

The selected surfactant was Oil Eater Cleaner/Degreaser manufactured by Kafko International, Ltd. of Skokie, Illinois. Oil Eater is a non-toxic, concentrated cleaner and degreaser. A Material Safety Data Sheet (MSDS) for this product is included in Appendix D. The surfactant was mixed with water into a solution ranging from approximately one to ten percent and injected into the UST pit. Water and surfactant mixing occurred in batches using two 250-gallon totes.

2.3.4 Performance Monitoring

Pre-injection groundwater samples were collected from the wells concurrent with the quarterly groundwater monitoring schedule for the Site (i.e., June 2011). Performance monitoring activities also consisted of one week (five business days) of daily groundwater gauging events of the monitoring well network and tank pit observation wells. In addition, post-injection groundwater samples were collected from the wells concurrent with the quarterly groundwater monitoring schedule for the Site (i.e., September 2011) following the removal of the surfactant solution from the tank pit.

Prior to the collection of groundwater samples, AEC purged at least three well volumes from each well with a stainless steel bailer. Groundwater samples were collected using a disposable high-density polyethylene (HDPE) bailer.

The analytical laboratory provided pre-preserved sample containers, where appropriate. The sample labels were firmly attached to the container side, and the following information was legibly and indelibly written on the labels: facility name; sample identification; sampling date and time; preservatives added; and, sample collector's initials. After the samples were sealed and labeled, they were packaged for transport to a qualified environmental laboratory. The following packaging procedures were followed: samples will be packaged to prevent leakage or vaporization from the containers; samples will be cushioned to avoid breakage; and, ice will be added to the cooler to keep the samples cool. New sections of nylon rope were used for the pre-cleaned disposal bailers at each sample location. In addition, a clean pair of new, disposable, nitrile gloves were worn each time a sample is collected.

The groundwater samples were analyzed for TPH DRO and GRO using EPA Analytical Method 8015B, and VOCs, including fuel oxygenates, via EPA Analytical Method 8260.

2.4 Waste Management Procedures

All development water was treated with a mobile granular activated carbon (GAC) treatment system and disposed of on-Site. All water from the tank pit observation wells generated during EFR activities was containerized and disposed of using a vac-truck. Copies of the waste disposal manifests are included in Appendix E.

Investigation-derived soil was containerized in 55-gallon drums, labeled (date of generation, site name/address, source, and contents), and, staged on the Site. The soil drums were composite sampled and analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) via EPA Analytical Method 8021, and TPH DRO and GRO via EPA Analytical Method 8015 for disposal characterization. Based on the results of the characterization analyses (No BTEX, TPH DRO, or TPH GRO exceeding their respective laboratory detection levels) soil cuttings were land spread in the wooded area on the western portion of the Site. The laboratory analytical report and chain-of-custody form is provided in Appendix F.

3.0 INVESTIGATION ACTIVITY RESULTS

3.1 Soil Sample Analytical Results

Laboratory analysis of soil samples collected from the monitoring well borings (MW-4-9' and MW-5-5') did not identify any detectable concentrations of VOCs, TPH GRO or TPH DRO. Figure 4 of Appendix A and Table 3 in Appendix B summarizes the soil quality data for the subsurface investigation. A copy of the completed laboratory analytical report and chain-of-custody form is provided in Appendix F.

3.2 Pre-Injection Groundwater Sample Analytical Results

AEC has previously submitted the Quarterly Groundwater Monitoring Report and UST Pit Venting Activity Summary – Second Quarter 2011, dated July 11, 2011 to the MDE. The results of the pre–injection laboratory analysis indicate that elevated concentrations of VOCs, with respect to the regulatory standards (i.e., MDE Cleanup Standards for Type I and II Aquifers, June 2008), were detected in groundwater samples collected from monitoring wells (MW-2 and MW-5) as well as both tank pit observation wells (TP-1 and TP-2). According to the laboratory analytical results, no samples collected from the potable well system contained concentrations of VOCs above MDE cleanup standards. Figure 5 in Appendix A summarizes the pre-injection groundwater quality data. Table 2 in Appendix B summarizes current and historical groundwater analytical results. A copy of the completed laboratory analytical report and chain-of-custody form is provided in Appendix F.

3.3 Pre-Injection EFR Results

On August 8, 2011, AEC performed tank pit EFR operations via vac-truck. Over the course of nine hours, approximately 7,500 gallons of water were removed from the tank pit. This equates to a flow rate of approximately 14 gallons per minute (GPM).

Depths to water measurements were periodically taken in the Site wells during the EFR activities. In general, water levels within monitoring wells were consistent with slight water level decreases (less than 0.10 foot) during the pre-injection EFR activities. An initial water level increase was noted in MW-1 (0.26 feet) and MW-2 (0.06 feet). Water levels within the tank pit wells decreased at an average rate of approximately 0.87 feet per hour. In order to determine the recharge of the tank pit, EFR operations were suspended for 30 minutes. During this time period, minimal (less than 0.05 foot) recharge was noted in both of the tank pit wells. A summary of data collected during the pre-injection EFR activities is provided in Table 4 of Appendix B.

On August 9, 2011, depths to water readings were collected in all of the Site wells. 0.24 feet of recharge was noted in TP-1 and 0.29 feet of recharge was noted in TP-2. Varying degrees of water level change (both increases and decreases) were noted in the monitoring wells. The greatest water level decrease was 0.30 feet in MW-2. The greatest water level increase was 0.05 feet in MW-4. No change in water level was noted in MW-3.

Additional EFR was performed on August 9, 2011 in order to dewater the UST pit as much as possible prior to the surfactant injection activities. No significant drawdown was achieved in the tank pit after one hour of EFR. Approximately 300 gallons of liquid were recovered during the August 9, 2011 EFR event.

3.4 Surfactant Injection Results

On August 9, 2011, AEC began injecting a surfactant solution into the tank pit monitoring wells. The solution consisted of 4,370 gallons of water and 253 gallons of surfactant (5.47% solution). The solution was mixed in 17 batches of varying volumes and concentrations. The surfactant solution was injected at an average rate of 27.55 GPM. The interval treated on August 9, 2011 was from approximately 14 to 8 feet bgs.

On August 10, 2011, AEC continued the surfactant solution injection into the tank pit monitoring wells. The solution on this date consisted of 5,997 gallons of water and 192 gallons of surfactant (3.10% solution). The solution was mixed in 27 batches of varying volumes and concentrations. The surfactant solution was injected at an average rate of 27.55 GPM. The interval treated on August 10, 2011 was from approximately 8 to 3.5 feet bgs.

A portion (11 batches) of the solution injected on August 10, 2011 was applied to the zone where the majority of LPH observations have occurred (5 to 8 feet bgs). Specifically, 2,867 gallons of water and 163 gallons of surfactant (6.08% solution) were injected to the 5 to 8 foot bgs depth interval at an average rate of 38.35 GPM.

The static water level in the tank pit reached a depth of approximately 3.5 feet bgs when injection activities were terminated. It is possible that some of the surfactant solution may have migrated into piping runs for the Site SVE system. As such, the target depth of 2 feet bgs was not obtained. A total of 10,367 gallons of water and 445 gallons of surfactant (4.12% solution) were injected over the two day period at an average rate of 35.87 GPM. The total volume of surfactant amended water (10,812 gallons) was allowed to remain in the tank field for approximately 16.5 hours before a second EFR event was conducted to remove the solution. Surfactant injection data is summarized in Table 5 of Appendix B.

3.5 Post-Injection EFR Results

On August 11, 2011, AEC performed post-injection EFR operations via vac-truck. Over the course of 8.5 hours, approximately 10,035 gallons of water were removed from the tank pit. This equates to a flow rate of approximately 19.68 GPM. Depths to water measurements were periodically taken in the Site wells during the EFR activities. In general, water levels were consistent with slight water level decreases (less than 0.13 foot) during the post-injection EFR activities. A water level increase was noted in MW-3 (0.10 feet), and MW-5 (0.09 feet). Water levels within the tank pit wells decreased at an average rate of approximately 1.05 feet per hour. A summary of data collected during the post-injection EFR activities is provided in Table 6 of Appendix B.

3.6 Daily Groundwater Monitoring Results

Following the completion of the EFR and injection activities, all of the monitoring and tank pit wells were gauged for five consecutive days, from August 12, 2011 to August 16, 2011. Based on the results of the daily gauging, a total recharge of 1.86 feet was observed in both TP-1 and TP-2. Fluctuations in water levels observed in the monitoring wells were likely the result of rain events that occurred during the five day gauging period. A summary of data collected during the post-injection gauging activities is included in Table 1 of Appendix B.

3.7 Post-Injection Groundwater Sample Analytical Results

AEC has previously submitted the Quarterly Groundwater Monitoring Report and UST Pit Venting Activity Summary – Third Quarter 2011, dated September 23, 2011 to the MDE. The results of the post–injection laboratory analysis indicate that elevated concentrations of VOCs, with respect to the regulatory standards (i.e., MDE Cleanup Standards for Type I and II Aquifers, June 2008), were detected in groundwater samples collected from monitoring wells (MW-1, MW-2, MW-3, and MW-5) as well as both tank pit observation wells (TP-1 and TP-2). According to the laboratory analytical results, VOCs were detected in all three of the samples collected from the potable well treatment system. None of the detected VOC concentrations exceeded their respective regulatory standards. Figure 6 in Appendix A summarizes the post-injection groundwater quality data. Table 2 in Appendix B summarizes current and historical groundwater analytical results. The laboratory analytical report and chain-of-custody form is presented in Appendix F.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the post-injection groundwater sampling, it appears that some decreases in total BTEX concentrations have occurred in TP-2 while the concentrations in TP-1 remained relatively static. It will be necessary to monitor the long term effectiveness of the surfactant injection through the continued quarterly groundwater monitoring program.

APPENDIX A

FIGURES

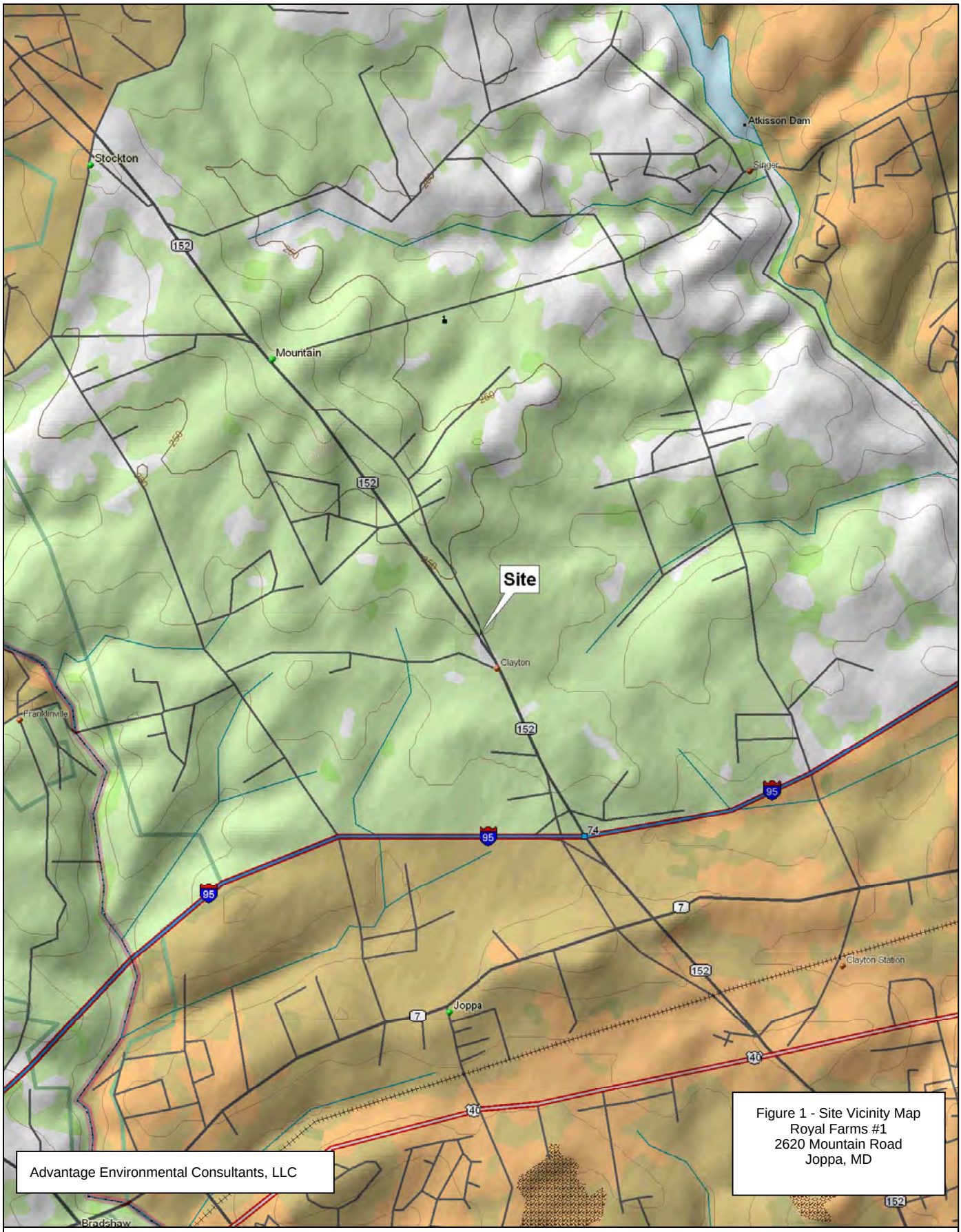


Figure 1 - Site Vicinity Map
Royal Farms #1
2620 Mountain Road
Joppa, MD

Advantage Environmental Consultants, LLC

DELORME

© 2001 DeLorme. Topo USA® 3.0

Zoom Level: 12-7 Datum: WGS84

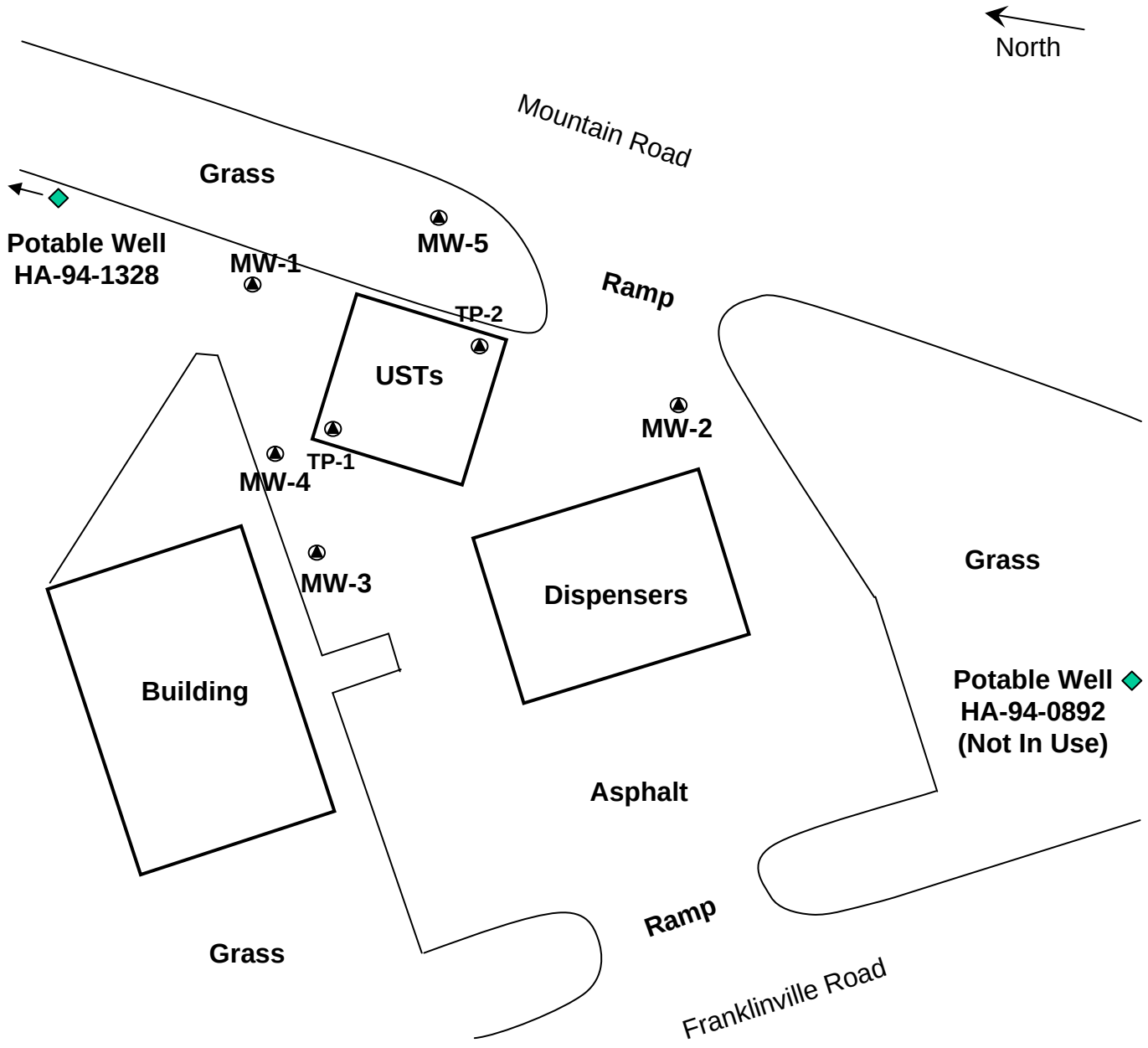
Scale 1 : 28,125

1" = 2,343.75 ft

TN

MN

11.3°W



Potable Well

Monitoring Well/Tank Pit Well Location

Approximate Scale

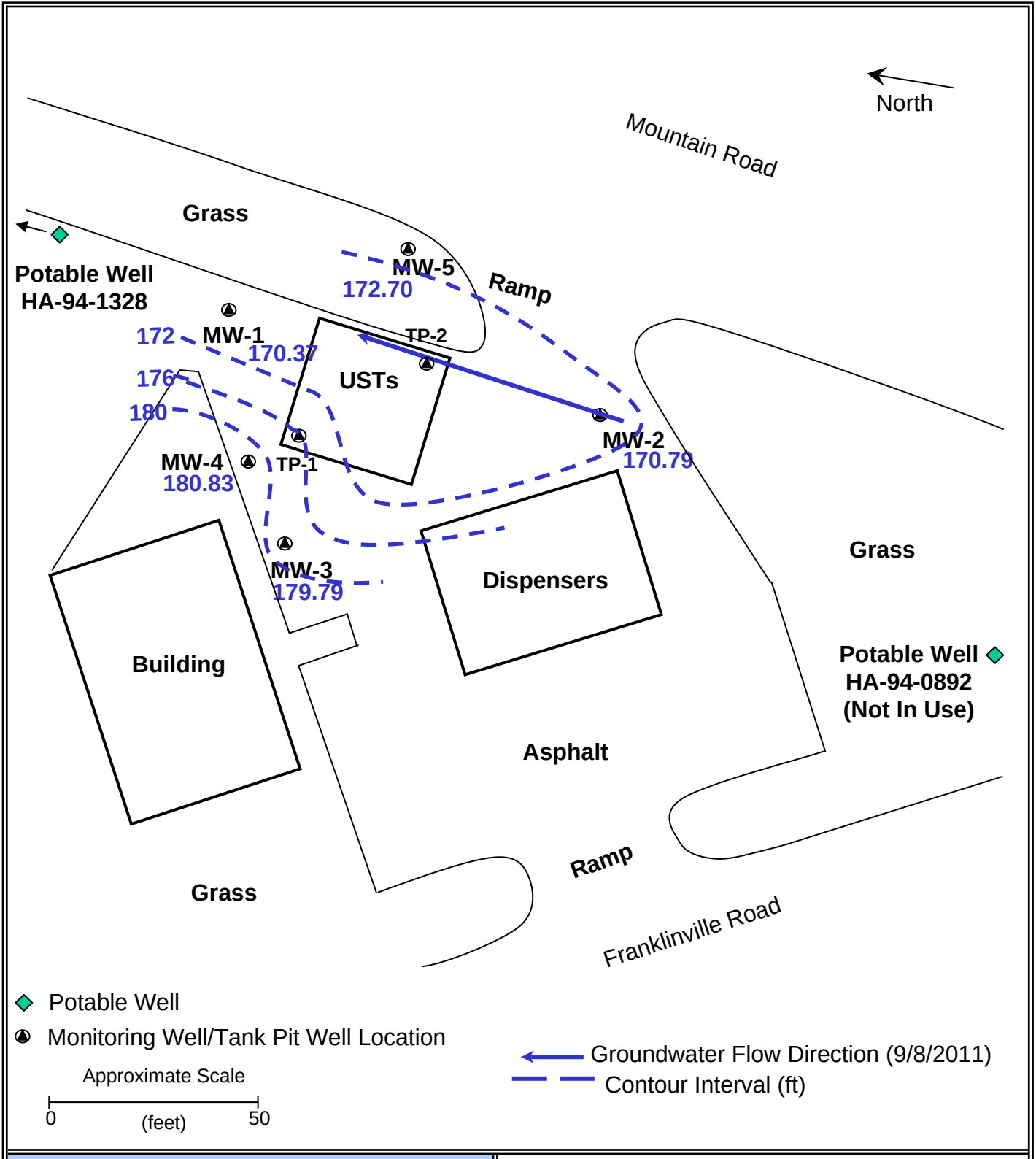
0 (feet) 50

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.

8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax 301-776-1123

Figure 2 – Site Map
Royal Farms Store #1
2620 Mountain Road
Joppa, Maryland

Work Order No.:	Report Date:	Drawn By:
05-056	September 2011	ABR

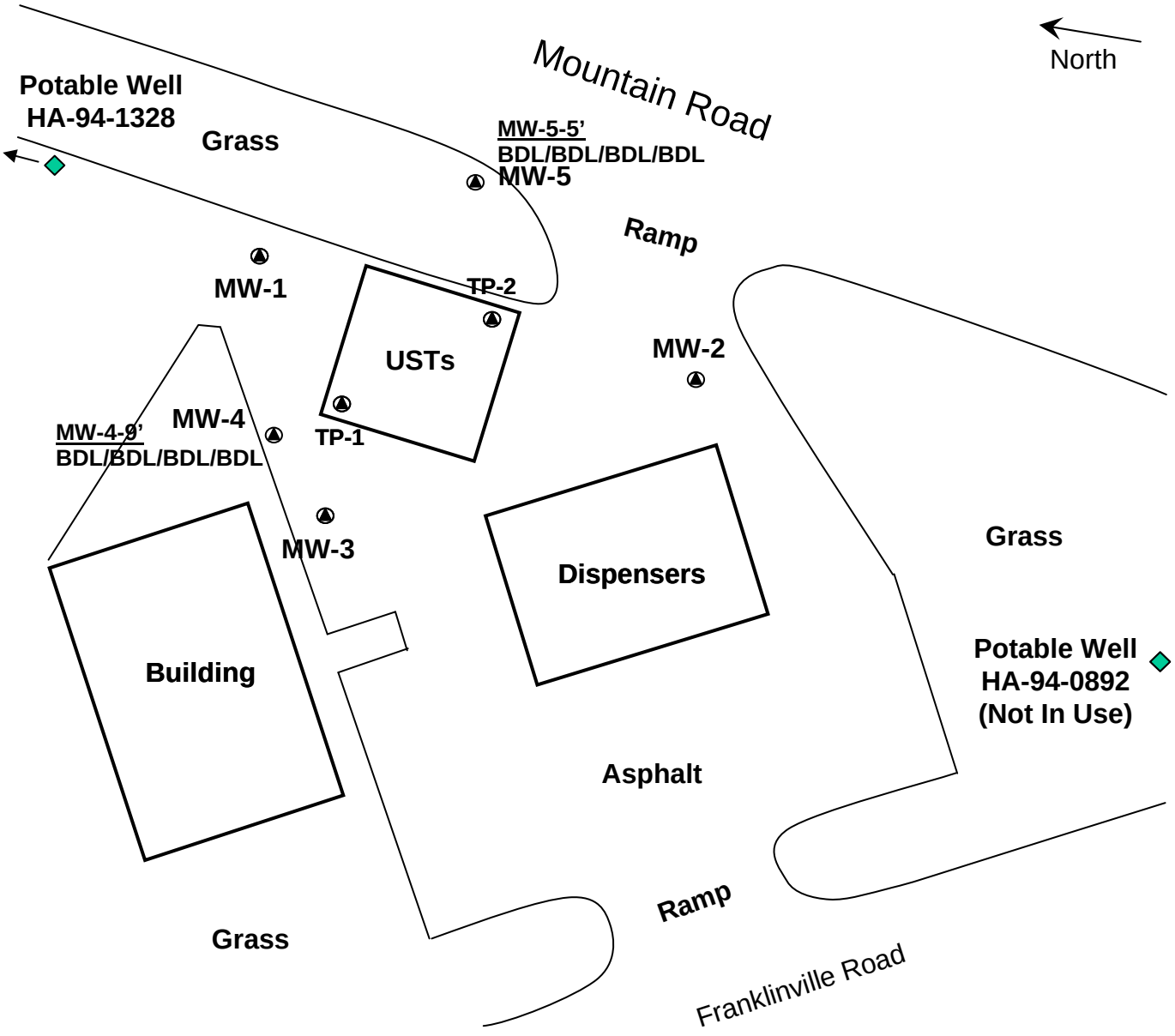


ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.

8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax 301-776-1123

Figure 3 – Groundwater Gradient Map
Royal Farms Store #1
2620 Mountain Road
Joppa, Maryland

Work Order No.:	Report Date:	Drawn By:
05-056	September 2011	ABR



Potable Well

Monitoring Well/Tank Pit Well Location

Approximate Scale

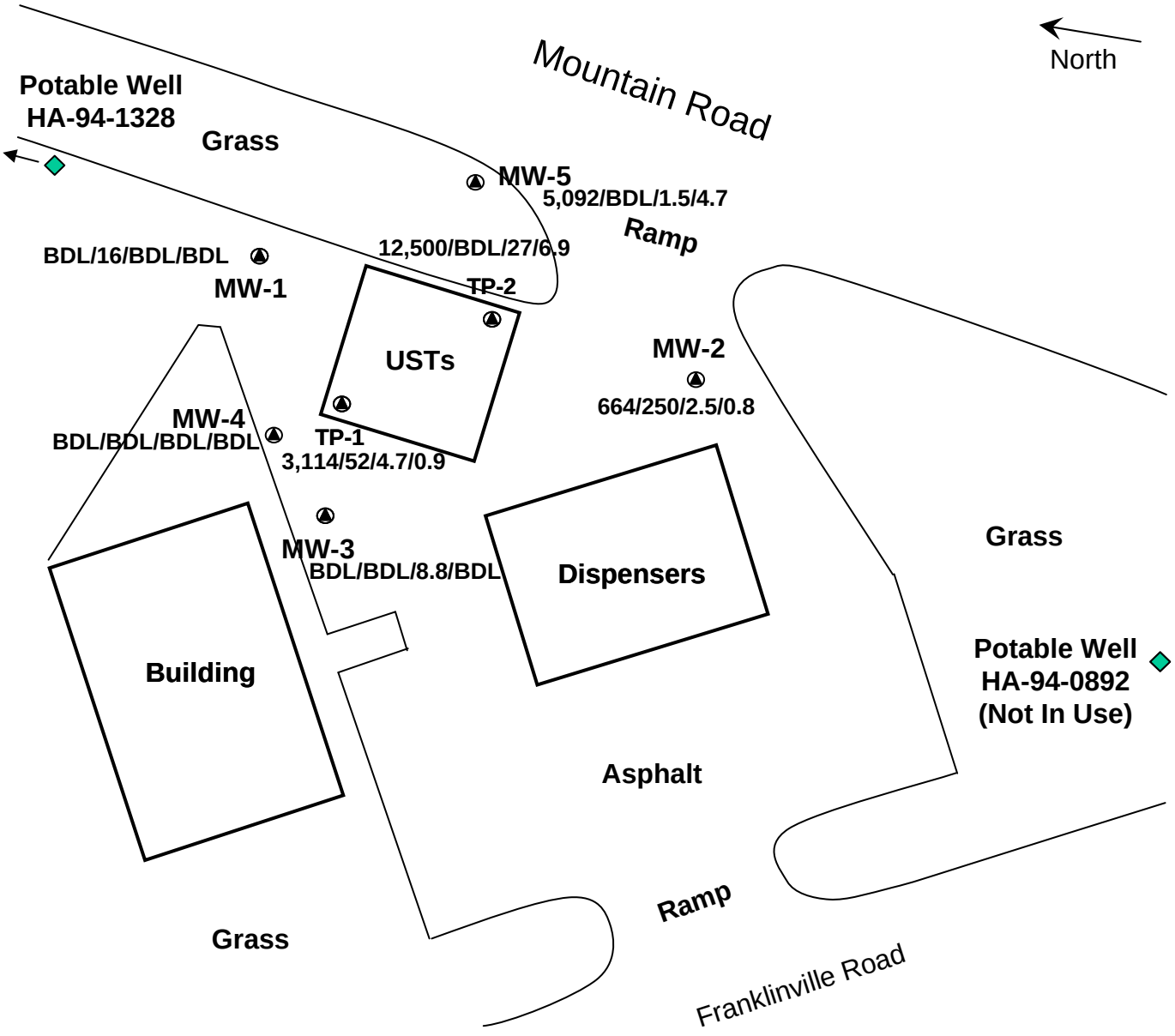
0 (feet) 50

Samples collected on 6/10/2011
Samples analyzed for VOCs per EPA 8260 plus oxygenates
TPH GRO/DRO per EPA 8015
Total BTEX/MTBE/GRO/DRO
VOCs in ug/kg or ppb/TPH in mg/kg or ppm
BDL = Below Detection Limits
NS = Not Sampled

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.
8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax 301-776-1123

Figure 4 – Soil Quality Map
Royal Farms Store #1
2620 Mountain Road
Joppa, Maryland

Work Order No.:	Report Date:	Drawn By:
05-056	September 2011	ABR



Potable Well

Monitoring Well/Tank Pit Well Location

Approximate Scale

0 (feet) 50

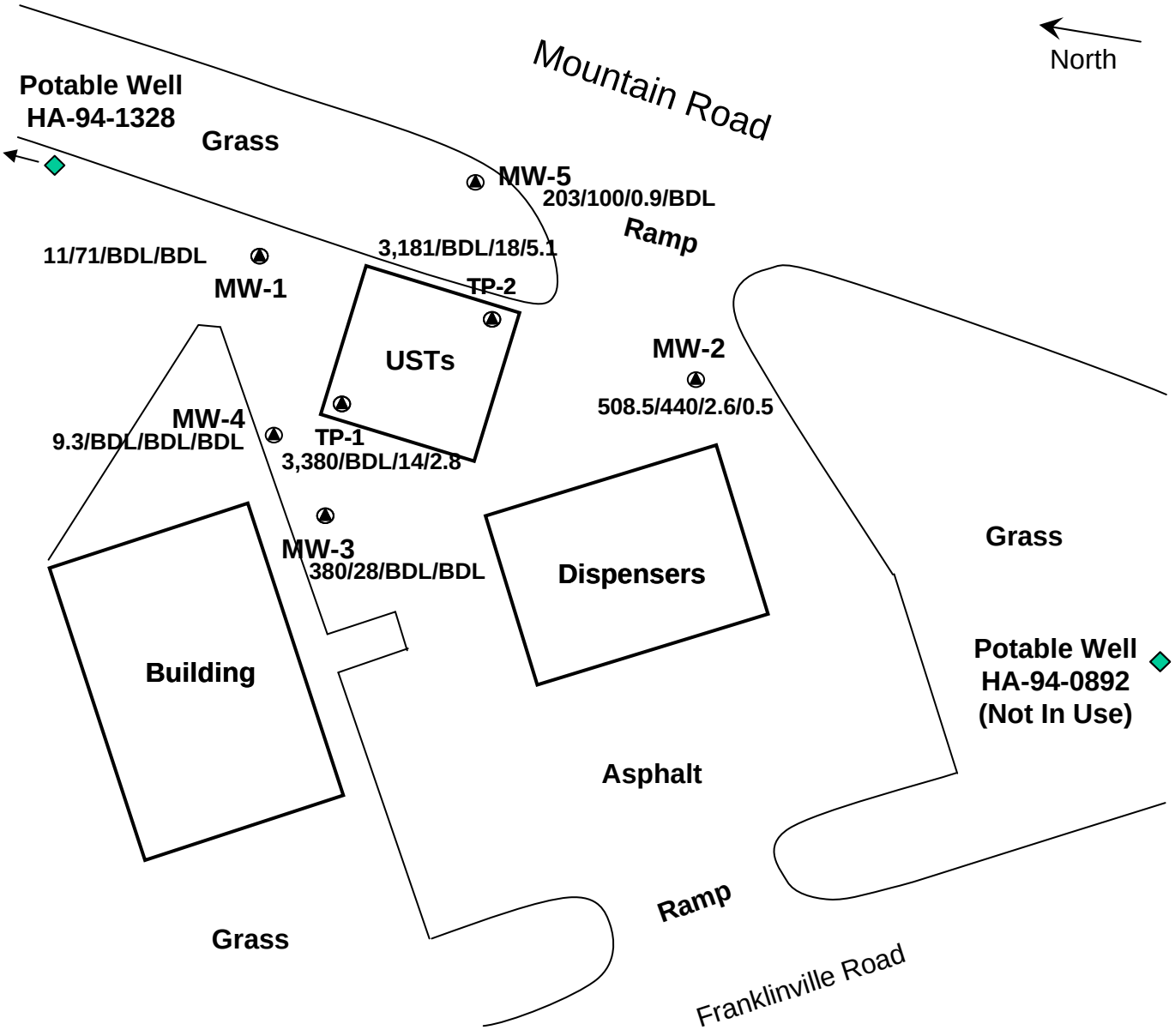
Samples collected on 6/30/2011
Samples analyzed for VOCs per EPA 8260 plus oxygenates
TPH GRO/DRO per EPA 8015
Total BTEX/MTBE/GRO/DRO
VOCs in ug/l or ppb/TPH in mg/l or ppm
BDL = Below Detection Limits
NS = Not Sampled

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.

8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax 301-776-1123

Figure 5 – Pre-Injection Groundwater Quality Map
Royal Farms Store #1
2620 Mountain Road
Joppa, Maryland

Work Order No.:	Report Date:	Drawn By:
05-056	September 2011	ABR



◆ Potable Well

▲ Monitoring Well/Tank Pit Well Location

Approximate Scale

0 (feet) 50

Samples collected on 9/8/2011
Samples analyzed for VOCs per EPA 8260 plus oxygenates
TPH GRO/DRO per EPA 8015
Total BTEX/MTBE/GRO/DRO
VOCs in ug/l or ppb/TPH in mg/l or ppm
BDL = Below Detection Limits
NS = Not Sampled

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.
8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax 301-776-1123

Figure 6 – Post-Injection Groundwater Quality Map
Royal Farms Store #1
2620 Mountain Road
Joppa, Maryland

Work Order No.:	Report Date:	Drawn By:
05-056	September 2011	ABR

APPENDIX B

TABLES

Table 1 - Historical Groundwater Elevation Data
Gasoline Fueling Station – Royal Farms #1
2620 Mountain Road, Joppa, Maryland 21085

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
MW-1	7/9/2005	17.01	94.17	77.16	
	2/6/2006	18.11	94.17	76.06	
	6/29/2006	15.75	94.17	78.42	
	1/25/2007	17.23	94.17	76.94	
	1/26/2007	17.23	94.17	76.94	
	2/5/2007	17.29	94.17	76.88	
	2/12/2007	NG	94.17	NG	
	2/19/2007	NG	94.17	NG	
	2/21/2007	NG	94.17	NG	
	3/30/2007	NG	94.17	NG	
	4/23/2007	NG	94.17	NG	
	4/27/2007	NG	94.17	NG	
	7/25/2007	17.73	94.17	76.44	
	8/22/2007	17.92	94.17	76.25	
	9/12/2007	19.59	94.17	74.58	
	10/30/2007	20.83	94.17	73.34	
	1/29/2008	20.31	94.17	73.86	
	3/19/2008	17.91	94.17	76.26	
	5/29/2008	16.74	94.17	77.43	
	6/19/2008	15.55	94.17	78.62	
	9/30/2008	19.27	94.17	74.90	
	12/16/2008	20.05	94.17	74.12	
	3/25/2009	18.46	94.17	75.71	
	6/26/2009	15.31	94.17	78.86	
	9/28/2009	16.00	94.17	78.17	
	12/29/2009	16.19	94.17	77.98	
	3/31/2010	13.95	94.17	80.22	
	6/29/2010	16.00	94.17	78.17	
	9/28/2010	18.85	94.17	75.32	
	12/21/2010	18.87	94.17	75.30	
	3/28/2011	17.87	94.17	76.30	
	6/30/2011	15.36	186.19**	170.83**	
	8/8/2011	16.86	186.19	169.33	
	8/12/2011	16.90	186.19	169.29	
	8/13/2011	17.06	186.19	169.13	
	8/14/2011	17.11	186.19	169.08	
	8/15/2011	16.89	186.19	169.30	
	8/16/2011	16.71	186.19	169.48	
	9/8/2011	15.82	186.19	170.37	
MW-2	7/9/2005	15.18	94.64	79.46	
	2/6/2006	16.57	94.64	78.07	
	6/29/2006	15.13	94.64	79.51	
	1/25/2007	15.62	94.64	79.02	
	1/26/2007	15.62	94.64	79.02	
	2/5/2007	15.67	94.64	78.97	
	2/12/2007	NG	94.64	NG	
	2/19/2007	NG	94.64	NG	
	2/21/2007	NG	94.64	NG	
	3/30/2007	NG	94.64	NG	
	4/23/2007	NG	94.64	NG	
	4/27/2007	NG	94.64	NG	
	7/25/2007	17.16	94.64	77.48	

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	8/22/2007	17.64	94.64	77.00	
	9/12/2007	19.07	94.64	75.57	
	10/30/2007	20.42	94.64	74.22	
	1/29/2008	19.89	94.64	74.75	
	3/19/2008	17.66	94.64	76.98	
	5/29/2008	15.90	94.64	78.74	
	6/19/2008	14.82	94.64	79.82	
	9/30/2008	18.50	94.64	76.14	
	12/16/2008	19.92	94.64	74.72	
	3/25/2009	18.33	94.87*	76.54	
	6/26/2009	6.76	94.87	88.11	
	9/28/2009	6.90	94.87	87.97	
	12/29/2009	7.72	94.87	87.15	
	3/31/2010	8.15	94.87	86.72	
	6/29/2010	13.98	94.87	80.89	
	9/28/2010	16.55	94.87	78.32	
	12/21/2010	16.45	94.87	78.42	Slight Odor
	3/28/2011	13.14	94.87	81.73	Slight Odor
	6/30/2011	10.62	186.04**	175.42**	
	8/8/2011	15.72	186.04	170.32	
	8/12/2011	16.11	186.04	169.93	
	8/13/2011	16.51	186.04	169.53	
	8/14/2011	16.49	186.04	169.55	
	8/15/2011	15.75	186.04	170.29	
	8/16/2011	16.08	186.04	169.96	
	9/8/2011	15.25	186.04	170.79	
MW-3	7/9/2005	14.62	93.08	78.46	
	2/6/2006	15.51	93.08	77.57	
	6/29/2006	14.72	93.08	78.36	
	1/25/2007	15.63	93.08	77.45	
	1/26/2007	15.63	93.08	77.45	
	2/5/2007	15.67	93.08	77.41	
	2/12/2007	NG	93.08	NG	
	2/19/2007	NG	93.08	NG	
	2/21/2007	NG	93.08	NG	
	3/30/2007	NG	93.08	NG	
	4/23/2007	NG	93.08	NG	
	4/27/2007	NG	93.08	NG	
	7/25/2007	16.70	93.08	76.38	
	8/22/2007	16.98	93.08	76.10	
	9/12/2007	7.50	93.08	85.58	
	10/30/2007	6.69	93.08	86.39	
	1/29/2008	6.61	93.08	86.47	
	3/19/2008	5.81	93.08	87.27	
	5/29/2008	5.39	93.08	87.69	
	6/19/2008	5.05	93.08	88.03	
	9/30/2008	6.13	93.08	86.95	
	12/16/2008	6.26	93.08	86.82	
	3/25/2009	6.90	93.08	86.18	
	6/26/2009	4.79	93.08	88.29	
	9/28/2009	4.66	93.08	88.42	
	12/29/2009	3.82	93.08	89.26	
	3/31/2010	2.86	93.08	90.22	
	6/29/2010	4.45	93.08	88.63	
	9/28/2010	5.42	93.08	87.66	
	12/21/2010	5.42	93.08	87.66	
	3/28/2011	4.56	93.08	88.52	

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	6/30/2011	5.57	185.65**	180.08**	
	8/8/2011	6.72	185.65	178.93	
	8/12/2011	6.99	185.65	178.66	
	8/13/2011	7.02	185.65	178.63	
	8/14/2011	6.99	185.65	178.66	
	8/15/2011	6.90	185.65	178.75	
	8/16/2011	6.88	185.65	178.77	
	9/8/2011	5.86	185.65	179.79	
MW-4	6/30/2011	6.73	185.64	178.91	
	8/8/2011	11.46	185.64	174.18	
	8/12/2011	11.73	185.64	173.91	
	8/13/2011	11.84	185.64	173.80	
	8/14/2011	11.81	185.64	173.83	
	8/15/2011	7.68	185.64	177.96	
	8/16/2011	6.58	185.64	179.06	
	9/8/2011	4.81	185.64	180.83	
MW-5	6/30/2011	13.37	187.50	174.13	
	8/8/2011	16.76	187.50	170.74	
	8/12/2011	17.23	187.50	170.27	
	8/13/2011	17.49	187.50	170.01	
	8/14/2011	17.31	187.50	170.19	
	8/15/2011	17.45	187.50	170.05	
	8/16/2011	17.31	187.50	170.19	
	9/8/2011	14.80	187.50	172.70	Slight Sheen
TP-1	7/9/2005	NG	NM	NM	
	2/6/2006	NG	NM	NM	
	6/29/2006	NG	NM	NM	
	1/25/2007	5.03	NM	NM	LPH (0.01 ft.)
	1/26/2007	5.03	NM	NM	LPH (0.01 ft.)
	2/5/2007	5.08	NM	NM	LPH (0.01 ft.)
	2/12/2007	6.97	NM	NM	LPH (0.01 ft.)
	2/19/2007	6.94	NM	NM	LPH (0.01 ft.)
	2/21/2007	6.21	NM	NM	LPH (0.01 ft.)
	3/30/2007	6.18	NM	NM	LPH (0.01 ft.)
	4/23/2007	8.47	NM	NM	LPH (0.01 ft.)
	4/27/2007	8.21	NM	NM	LPH (0.01 ft.)
	5/25/2007	6.65	NM	NM	Sheen
	6/1/2007	6.34	NM	NM	Sheen
	6/10/2007	6.25	NM	NM	Sheen
	6/15/2007	6.22	NM	NM	Sheen
	7/25/2007	6.54	NM	NM	Slight Sheen
	8/22/2007	6.89	NM	NM	Slight Sheen
	9/12/2007	7.40	NM	NM	Slight Sheen
	10/30/2007	6.55	NM	NM	Slight Sheen
	11/13/2007	6.69	NM	NM	Slight Sheen
	12/18/2007	6.55	NM	NM	Slight Sheen
	1/29/2008	6.48	NM	NM	Slight Sheen
	2/26/2008	6.07	NM	NM	
	3/19/2008	6.13	NM	NM	Slight Sheen
	4/24/2008	6.40	NM	NM	
	5/29/2008	5.44	NM	NM	Slight Sheen
	6/19/2008	5.61	NM	NM	Slight Sheen
	7/3/2008	5.90	NM	NM	
	7/11/2008	6.02	NM	NM	
	7/18/2008	6.01	NM	NM	
	7/25/2008	6.08	NM	NM	

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	8/1/2008	6.19	NM	NM	
	8/15/2008	6.44	NM	NM	
	8/22/2008	6.68	NM	NM	
	8/27/2008	6.49	NM	NM	
	9/12/2008	6.55	NM	NM	
	9/18/2008	6.53	NM	NM	
	9/26/2008	6.63	NM	NM	
	9/30/2008	5.69	NM	NM	
	10/7/2008	5.87	NM	NM	Odor
	10/16/2008	6.51	NM	NM	Sheen/Odor
	10/23/2008	6.48	NM	NM	Odor
	10/30/2008	5.99	NM	NM	Odor
	11/6/2008	6.28	NM	NM	
	11/11/2008	6.50	NM	NM	Sheen/Odor
	11/19/2008	5.89	NM	NM	Odor
	11/25/2008	6.18	NM	NM	Odor
	12/5/2008	6.18	NM	NM	Odor
	12/10/2008	6.19	NM	NM	Odor
	12/16/2008	5.76	NM	NM	Slight Sheen
	12/24/2008	5.59	NM	NM	Odor
	1/2/2009	5.92	NM	NM	Odor
	1/8/2009	5.63	NM	NM	Odor
	1/14/2009	5.98	NM	NM	Odor
	1/23/2009	5.90	NM	NM	Odor
	1/30/2009	6.03	NM	NM	Odor
	2/5/2009	6.00	NM	NM	Odor
	2/9/2009	5.98	NM	NM	Odor
	2/16/2009	6.12	NM	NM	Odor
	2/23/2009	6.29	NM	NM	Odor
	3/3/2009	6.38	NM	NM	Odor
	3/11/2009	6.42	NM	NM	Odor
	3/17/2009	6.39	NM	NM	Odor
	3/25/2009	6.59	NM	NM	Slight Sheen
	4/3/2009	6.08	NM	NM	Slight Sheen
	4/10/2009	5.11	NM	NM	Slight Sheen
	4/23/2009	4.50	NM	NM	Slight Sheen
	5/1/2009	4.82	NM	NM	
	5/6/2009	4.20	NM	NM	
	5/14/2009	4.29	NM	NM	
	5/21/2009	4.27	NM	NM	
	5/27/2009	4.31	NM	NM	
	6/3/2009	6.18	NM	NM	
	6/8/2009	6.15	NM	NM	
	6/18/2009	4.01	NM	NM	
	6/26/2009	4.09	NM	NM	
	7/2/2009	4.07	NM	NM	
	7/7/2009	4.19	NM	NM	
	7/17/2009	4.52	NM	NM	Slight Odor
	7/21/2009	4.04	NM	NM	
	8/27/2009	5.35	NM	NM	
	9/28/2009	3.48	NM	NM	Sheen/Odor
	10/30/2009	2.85	NM	NM	Slight Odor
	11/30/2009	2.94	NM	NM	Sheen/Odor
	12/29/2009	2.24	NM	NM	Slight Odor
	1/26/2010	NG	NM	NM	
	2/26/2010	1.34	NM	NM	Slight Odor

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	3/31/2010	3.25	NM	NM	
	4/27/2010	1.67	NM	NM	
	5/25/2010	2.37	NM	NM	Slight Sheen
	6/29/2010	3.09	NM	NM	
	7/29/2010	3.51	NM	NM	
	8/31/2010	4.76	NM	NM	
	9/28/2010	3.13	NM	NM	
	10/28/2010	3.77	NM	NM	
	11/30/2010	4.84	NM	NM	
	12/21/2010	4.76	NM	NM	Mod. Odor
	1/4/2011	5.25	NM	NM	
	2/28/2011	3.60	NM	NM	Slight Sheen
	3/28/2011	3.07	NM	NM	Slight Odor
	4/26/2011	2.89	NM	NM	Mod. Odor
	5/25/2011	3.05	NM	NM	
	6/30/2011	4.18	NM	NM	
	7/26/2011	5.12	NM	NM	
	8/8/2011	5.33	NM	NM	Slight Odor
	8/12/2011	12.19	NM	NM	Surfactant Odor
	8/13/2011	11.86	NM	NM	Surfactant Odor
	8/14/2011	11.11	NM	NM	Surfactant Odor
	8/15/2011	10.66	NM	NM	Surfactant Odor
	8/16/2011	10.33	NM	NM	Surfactant Odor
	9/8/2011	4.11	NM	NM	Slight sheen
TP-2	7/9/2005	NG	NM	NM	
	2/6/2006	NG	NM	NM	
	6/29/2006	NG	NM	NM	
	1/25/2007	5.05	NM	NM	LPH (0.02 ft.)
	1/26/2007	5.33	NM	NM	LPH (0.01 ft.)
	2/5/2007	5.09	NM	NM	LPH (0.01 ft.)
	2/12/2007	6.87	NM	NM	LPH (0.02 ft.)
	2/19/2007	6.85	NM	NM	LPH (0.02 ft.)
	2/21/2007	6.08	NM	NM	LPH (0.02 ft.)
	3/30/2007	6.03	NM	NM	LPH (0.02 ft.)
	4/23/2007	8.39	NM	NM	LPH (0.01 ft.)
	4/27/2007	8.20	NM	NM	LPH (0.01 ft.)
	5/25/2007	6.45	NM	NM	Sheen
	6/1/2007	6.17	NM	NM	Sheen
	6/10/2007	6.02	NM	NM	
	6/15/2007	6.03	NM	NM	
	7/25/2007	6.39	NM	NM	Slight Sheen
	8/22/2007	7.02	NM	NM	Slight Sheen
	9/12/2007	7.24	NM	NM	Slight Sheen
	10/30/2007	6.43	NM	NM	
	11/13/2007	6.51	NM	NM	Slight Sheen
	12/18/2007	6.49	NM	NM	Slight Sheen
	1/29/2008	6.30	NM	NM	Slight Sheen
	2/26/2008	5.81	NM	NM	
	3/19/2008	5.94	NM	NM	Slight Sheen
	4/24/2008	6.35	NM	NM	
	5/29/2008	5.27	NM	NM	Slight Sheen
	6/19/2008	5.44	NM	NM	Slight Sheen
	7/3/2008	5.73	NM	NM	
	7/11/2008	5.88	NM	NM	
	7/18/2008	5.86	NM	NM	
	7/25/2008	5.89	NM	NM	

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	8/1/2008	6.00	NM	NM	
	8/15/2008	6.28	NM	NM	
	8/22/2008	6.47	NM	NM	
	8/27/2008	6.31	NM	NM	
	9/12/2008	6.38	NM	NM	
	9/18/2008	6.37	NM	NM	
	9/26/2008	6.48	NM	NM	
	9/30/2008	5.78	NM	NM	
	10/7/2008	5.61	NM	NM	
	10/16/2008	6.33	NM	NM	Sheen/Odor
	10/23/2008	6.57	NM	NM	Odor
	10/30/2008	5.83	NM	NM	Odor
	11/6/2008	6.12	NM	NM	
	11/11/2008	6.33	NM	NM	Sheen/Odor
	11/19/2008	5.47	NM	NM	Odor
	11/25/2008	6.01	NM	NM	Odor
	12/5/2008	6.03	NM	NM	Odor
	12/10/2008	6.36	NM	NM	Odor
	12/16/2008	5.61	NM	NM	Sheen/Odor
	12/24/2008	5.42	NM	NM	Odor
	1/2/2009	5.74	NM	NM	Odor
	1/8/2009	5.45	NM	NM	Odor
	1/14/2009	5.77	NM	NM	Odor
	1/23/2009	5.71	NM	NM	Odor
	1/30/2009	5.86	NM	NM	Odor
	2/5/2009	5.83	NM	NM	Odor
	2/9/2009	5.91	NM	NM	
	2/16/2009	6.03	NM	NM	
	2/23/2009	6.21	NM	NM	
	3/3/2009	6.34	NM	NM	
	3/11/2009	6.36	NM	NM	
	3/17/2009	6.33	NM	NM	
	3/25/2009	6.52	NM	NM	Slight Sheen
	4/3/2009	6.02	NM	NM	Odor
	4/10/2009	5.03	NM	NM	Odor
	4/23/2009	4.42	NM	NM	Odor
	5/1/2009	4.60	NM	NM	
	5/6/2009	4.15	NM	NM	
	5/14/2009	4.23	NM	NM	
	5/21/2009	4.21	NM	NM	
	5/27/2009	4.37	NM	NM	
	6/3/2009	6.09	NM	NM	
	6/8/2009	6.04	NM	NM	
	6/18/2009	4.08	NM	NM	
	6/26/2009	4.01	NM	NM	
	7/2/2009	3.99	NM	NM	
	7/7/2009	4.13	NM	NM	
	7/17/2009	4.45	NM	NM	Slight Odor
	7/21/2009	3.98	NM	NM	
	8/27/2009	5.27	NM	NM	
	9/28/2009	3.40	NM	NM	Sheen/Odor
	10/30/2009	2.78	NM	NM	Sheen/Odor
	11/30/2009	2.85	NM	NM	Slight Odor
	12/29/2009	NG	NM	NM	
	1/26/2010	2.59	NM	NM	Slight Sheen
	2/26/2010	1.28	NM	NM	Slight Odor

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	3/31/2010	1.25	NM	NM	
	4/27/2010	1.61	NM	NM	
	5/25/2010	2.29	NM	NM	
	6/29/2010	3.02	NM	NM	
	7/29/2010	3.42	NM	NM	
	8/31/2010	4.68	NM	NM	
	9/28/2010	3.07	NM	NM	
	10/28/2010	3.83	NM	NM	
	11/30/2010	4.75	NM	NM	Strong Odor
	12/21/2010	4.70	NM	NM	Mod. Odor
	1/4/2011	5.32	NM	NM	
	2/28/2011	3.65	NM	NM	Slight Sheen
	3/28/2011	3.02	NM	NM	Slight Odor
	4/26/2011	2.81	NM	NM	Slight Odor
	5/25/2011	2.98	NM	NM	Slight Odor
	6/30/2011	4.12	NM	NM	
	7/26/2011	5.03	NM	NM	
	8/8/2011	5.26	NM	NM	Slight Odor
	8/12/2011	12.13	NM	NM	Surfactant Odor
	8/13/2011	11.81	NM	NM	Surfactant Odor
	8/14/2011	11.05	NM	NM	Surfactant Odor
	8/15/2011	10.61	NM	NM	Surfactant Odor
	8/16/2011	10.27	NM	NM	Surfactant Odor
	9/8/2011	4.06	NM	NM	Slight sheen

All measurements in feet

TOC = Top of Casing

NM = Not Measured

NG = Not Gauged

LPH = Liquid Phase Hydrocaron

** = Change in the recorded elevation reflects a re-survey of all onsite wells using elevation from a *Site & Stormwater Plan* dated May 22, 1995. The southwestern corner of the dispenser island was used as a benchmark.

* = TOC Elevation change due to SVE Install

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #1
2620 Mountain Road, Joppa, Maryland 21085

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
MW-1	7/9/2005	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	2/6/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/29/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	5.1	BDL	BDL
	3/19/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/19/2008	BDL	BDL	BDL	BDL	BDL	500	BDL	BDL
	9/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/16/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2009	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
	6/26/2009	BDL	BDL	BDL	BDL	BDL	24	BDL	BDL
	9/28/2009	BDL	14	BDL	20	34	9	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	70	BDL	BDL
	3/31/2010	BDL	BDL	BDL	BDL	BDL	160	BDL	BDL
	6/29/2010	BDL	BDL	BDL	BDL	BDL	38	BDL	BDL
	9/28/2010	BDL	BDL	BDL	BDL	BDL	25	BDL	BDL
	12/21/2010	BDL	BDL	BDL	BDL	BDL	110	BDL	BDL
	3/28/2011	BDL	BDL	BDL	BDL	BDL	86	BDL	BDL
	6/30/2011	BDL	BDL	BDL	BDL	BDL	16	BDL	BDL
	9/8/2011	BDL	BDL	BDL	11	11	71	BDL	BDL
MW-2	7/9/2005	BDL	BDL	BDL	BDL	BDL	740	NS	NS
	2/6/2006	BDL	BDL	BDL	BDL	BDL	560	NS	NS
	6/29/2006	BDL	BDL	BDL	BDL	BDL	960	NS	NS
	1/25/2007	74	BDL	25	11	110	15,000	BDL	BDL
	7/25/2007	59	BDL	BDL	BDL	59	21,000	BDL	BDL
	10/30/2007	12	BDL	BDL	BDL	12	4,800	BDL	BDL
	1/29/2008	65	BDL	51	150	266	22,300	BDL	0.8
	3/19/2008	23	BDL	93	89	205	25,000	BDL	BDL
	6/19/2008	700	200	1,700	1,080	3,680	19,000	7.9	9
	9/30/2008	720	19	1,300	261	2,300	11,300	5	3.9
	12/16/2008	34	BDL	48	24	106	5,100	9	7.9
	3/25/2009	214	18	400	56	688	2,900	1.7	BDL
	6/26/2009	320	1100	800	1500	3,720	3000	6	3.4
	9/28/2009	19	BDL	110	44	173	160	0.5	BDL
	12/29/2009	350	14	920	950	2234	3,800	6.8	2.4
	3/31/2010	250	10	1100	334	1694	3,800	3.2	2.6
	6/29/2010	200	6.6	620	357	1,184	720	2.5	1.9
	9/28/2010	220	14	840	453	1,527	800	4.2	1.5
	12/21/2010	160	7.5	2800	970	3,938	1100	3.6	2
	3/28/2011	120	BDL	800	BDL	920	620	1.6	1.2
	6/30/2011	80	BDL	500	84	664	250	2.5	0.8
	9/8/2011	80	7.5	370	51	508.5	440	2.6	0.5
MW-3	7/9/2005	BDL	BDL	BDL	BDL	BDL	9.7	NS	NS
	2/6/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/29/2006	BDL	BDL	BDL	BDL	BDL	5.4	NS	NS
	1/25/2007	BDL	BDL	BDL	BDL	BDL	91	BDL	BDL
	7/25/2007	BDL	BDL	BDL	BDL	BDL	220	BDL	BDL
	10/30/2007	9.6	21	34	169	233.6	74	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	0	66	BDL	BDL
	3/19/2008	BDL	BDL	BDL	BDL	0	63	BDL	BDL
	6/19/2008	BDL	BDL	6.2	BDL	6.2	66	BDL	BDL

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	9/30/2008	BDL	BDL	12	8.6	20.6	100	BDL	BDL
	12/16/2008	BDL	BDL	BDL	BDL	BDL	80	BDL	BDL
	3/25/2009	BDL	BDL	BDL	BDL	BDL	56	BDL	BDL
	6/26/2009	BDL	BDL	BDL	BDL	BDL	32	BDL	BDL
	9/28/2009	BDL	BDL	BDL	BDL	BDL	26	BDL	BDL
	12/29/2009	BDL	7.8	BDL	BDL	7.8	33	BDL	BDL
	3/31/2010	BDL	BDL	12	12	24	150	BDL	BDL
	6/29/2010	BDL	BDL	7.5	BDL	7.5	61	BDL	BDL
	9/28/2010	BDL	BDL	BDL	BDL	BDL	32	BDL	BDL
	12/21/2010	BDL	BDL	BDL	BDL	BDL	28	BDL	BDL
	3/28/2011	BDL	BDL	BDL	BDL	BDL	16	BDL	BDL
	6/30/2011	BDL	BDL	BDL	BDL	BDL	8.8	BDL	BDL
	9/8/2011	BDL	100	43	237	380	28	BDL	BDL
MW-4	6/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/8/2011	BDL	BDL	BDL	9.3	9.3	BDL	BDL	BDL
MW-5	6/30/2011	52	260	680	4,100	5,092	BDL	1.5	4.7
	9/8/2011	11	BDL	120	72	203	100	0.9	BDL
TP-1	7/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
	2/6/2006	NS	NS	NS	NS	NS	NS	NS	NS
	6/29/2006	NS	NS	NS	NS	NS	NS	NS	NS
	1/25/2007	NS	NS	NS	NS	NS	NS	NS	NS
	7/25/2007	2,700	43,500	7,300	21,500	75,000	100,000	24	21
	10/30/2007	2,300	28,000	6,400	24,100	60,800	29,000	28	330
	1/29/2008	1,400	25,000	5,500	19,400	51,300	27,000	23	100
	3/19/2008	1,100	29,600	6,600	28,000	65,300	12,100	27	110
	6/19/2008	1,500	30,000	6,400	19,000	56,900	14,500	29	57
	9/30/2008	970	22,000	2,000	2,120	27,090	13,000	60	35
	12/16/2008	420	19,500	5,500	17,400	42,820	4,900	110	78
	3/25/2009	830	21,000	6,900	24,400	53,130	17,000	130	28
	6/26/2009	450	12,000	2,600	4,500	19,550	2,300	50	22
	9/28/2009	44	1,600	900	2,600	5144	190	11	75
	12/29/2009	200	10,000	4,900	15,300	30400	570	27	3
	3/31/2010	97	2,900	2,400	6,700	12097	730	3.9	2.8
	6/29/2010	44	1,700	1,300	4,000	7,044	114	6.2	5.5
	9/28/2010	BDL	70	85	490	645	BDL	1.2	BDL
	12/21/2010	46	1,000	1,900	5,200	8,100	BDL	12	2
	3/28/2011	50	610	740	1,380	2,730	BDL	4.2	1.1
	6/30/2011	24	630	800	1,660	3,114	52	4.7	0.9
	9/8/2011	20	340	700	2,320	3,380	BDL	14	2.8
TP-2	7/9/2005	NS	NS	NS	NS	NS	NS	NS	NS
	2/6/2006	NS	NS	NS	NS	NS	NS	NS	NS
	6/29/2006	NS	NS	NS	NS	NS	NS	NS	NS
	1/25/2007	NS	NS	NS	NS	NS	NS	NS	NS
	7/25/2007	3,400	41,400	6,300	21,800	72,900	128,000	22	22
	10/30/2007	2,400	32,200	7,500	21,700	63,800	38,000	29	160
	1/29/2008	1,800	28,000	6,800	20,400	57,000	48,000	17	125
	3/19/2008	1,600	31,000	7,700	25,200	65,500	44,000	6.8	120
	6/19/2008	700	28,000	6,500	19,700	54,900	3,000	3.1	54
	9/30/2008	860	20,000	7,000	23,500	51,360	14,000	48	35
	12/16/2008	950	23,400	8,000	27,200	59,550	11,300	80	46
	3/25/2009	1,100	21,000	7,100	23,700	52,900	6,100	91	38
	6/26/2009	470	10,000	3,500	5,800	19,770	1,100	17	17
	9/28/2009	70	5,100	5,800	21,000	31,970	180	3.8	125
	12/29/2009	NS	NS	NS	NS	NS	NS	NS	NS
	3/31/2010	67	2,600	1,000	2,140	5,807	600	2.4	3.4
	6/29/2010	61	1,700	1,900	5,800	9,461	230	5.5	1.9
	9/28/2010	37	1,400	620	3,600	5,657	53	5	1.1

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	12/21/2010	130	5,800	5,200	19,700	30,830	BDL	11	7.5
	3/28/2011	26	340	520	1,604	2,490	BDL	3	0.6
	6/30/2011	100	1,400	3,300	7,700	12,500	BDL	27	6.9
	9/8/2011	21	330	660	2,170	3,181	BDL	18	5.1
Supply (PW-1)	6/29/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/25/2007	BDL	BDL	BDL	BDL	BDL	18	NS	NS
	10/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/12/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/19/2008	NS	NS	NS	NS	NS	NS	NS	NS
	9/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/16/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/25/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/26/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/31/2010	BDL	7.9	1.2	3.8	12.9	BDL	NS	NS
	6/29/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/21/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/8/2011	BDL	37	2.5	9.1	48.6	BDL	NS	NS
Supply (PW-2a)	6/29/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	10/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/29/2008	BDL	BDL	BDL	BDL	BDL	1.8	NS	NS
	3/12/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/19/2008	NS	NS	NS	NS	NS	NS	NS	NS
	9/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/16/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/25/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/26/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/29/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/21/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/8/2011	NS	NS	NS	NS	NS	NS	NS	NS
Supply (PW-2b)	3/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/8/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
Supply (PW-3)	7/9/2005	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	2/6/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/29/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/25/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	10/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/12/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/19/2008	NS	NS	NS	NS	NS	NS	NS	NS
	9/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	12/16/2008	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/25/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/26/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/29/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/28/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	12/21/2010	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	3/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	6/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	9/8/2011	BDL	9.8	4	19	32.8	BDL	NS	NS
Type I and II Aquifers		**5**	**1000**	**700**	**10000**	**NRS**	**20**	**0.047**	**0.047**

TPH GRO and DRO results in parts per million or mg/l

BTEX and MTBE results in parts per billion or ug/l

BDL = Below Detection Limits

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

MTBE = Methyl-tert-butyl-ether

TPH GRO = Total Petroleum Hydrocarbons Gasoline Range Organics

TPH DRO = Total Petroleum Hydrocarbons Diesel Range Organics

PW-1 = Potable Well Influent

PW-2 = Potable Well Mid Point

PW-3 = Potable Well Effluent

NS = Not Sampled

Some compounds may have been detected but are not tabulated on this spreadsheet.

See laboratory analytical results reports for full results.

J Denotes Estimated Value

MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 2.1 - June 2008)

NRS = No Regulatory Standard

Table 3: Soil Sample Analytical Results - TPH and VOCs
2620 Mountain Road, Joppa, MD
Samples Collected on March 12, 2008

Parameter	MW-4-9'	MW-5-5'	Non-Residential Clean-Up Standard*
TPH GRO	BDL	BDL	620
TPH DRO	BDL	BDL	620
VOCs	BDL	BDL	Varies

BDL denotes below analytical detection level

Table 4 - Pre-Injection Tank Field EFR Summary
Gasoline Fueling Station – Royal Farms #1
2620 Mountain Road, Joppa, Maryland 21085

Well	Date/Time	Depth to Water*	Comments
MW-1	8/8/11 7:00	16.86	Vac truck not operating
	8/8/11 8:00	16.60	
	8/8/11 8:15	16.60	
	8/8/11 8:30	16.60	
	8/8/11 8:45	16.61	
	8/8/11 9:00	16.61	
	8/8/11 10:00	16.61	
	8/8/11 11:00	16.61	
	8/8/11 12:00	16.61	
	8/8/11 13:00	16.61	
	8/8/11 13:10	16.61	Vac truck not operating
	8/8/11 13:20	16.65	Vac truck not operating
	8/8/11 13:30	16.66	Vac truck not operating
	8/8/11 14:30	16.63	
	8/8/11 15:30	16.65	
	8/8/11 16:30	16.64	
	8/8/11 17:30	16.64	
	8/9/11 7:00	16.70	Vac truck not operating
	8/9/11 9:15	16.75	
	8/9/11 9:30	16.68	
	8/9/11 9:45	16.69	
MW-2	8/8/11 7:00	15.72	Vac truck not operating
	8/8/11 8:00	15.66	
	8/8/11 8:15	15.67	
	8/8/11 8:30	15.65	
	8/8/11 8:45	15.63	
	8/8/11 9:00	15.64	
	8/8/11 10:00	15.59	
	8/8/11 11:00	15.56	
	8/8/11 12:00	15.56	
	8/8/11 13:00	15.56	
	8/8/11 13:10	15.55	Vac truck not operating
	8/8/11 13:20	15.56	Vac truck not operating
	8/8/11 13:30	15.58	Vac truck not operating
	8/8/11 14:30	15.58	
	8/8/11 15:30	15.61	
	8/8/11 16:30	15.61	
	8/8/11 17:30	15.61	
	8/9/11 7:00	15.91	Vac truck not operating
	8/9/11 9:15	15.99	
	8/9/11 9:30	15.94	
	8/9/11 9:45	15.94	
MW-3	8/8/11 7:00	6.72	Vac truck not operating
	8/8/11 8:00	6.73	
	8/8/11 8:15	6.74	
	8/8/11 8:30	6.74	
	8/8/11 8:45	6.75	
	8/8/11 9:00	6.75	
	8/8/11 10:00	6.75	

Well	Date/Time	Depth to Water*	Comments
	8/8/11 11:00	6.75	
	8/8/11 12:00	6.75	
	8/8/11 13:00	6.76	
	8/8/11 13:10	6.77	Vac truck not operating
	8/8/11 13:20	6.79	Vac truck not operating
	8/8/11 13:30	6.79	Vac truck not operating
	8/8/11 14:30	6.80	
	8/8/11 15:30	6.82	
	8/8/11 16:30	6.82	
	8/8/11 17:30	6.82	
	8/9/11 7:00	6.82	Vac truck not operating
	8/9/11 9:15	6.83	
	8/9/11 9:30	6.81	
	8/9/11 9:45	6.83	
MW-4	8/8/11 7:00	11.46	Vac truck not operating
	8/8/11 8:00	11.48	
	8/8/11 8:15	11.47	
	8/8/11 8:30	11.46	
	8/8/11 8:45	11.46	
	8/8/11 9:00	11.45	
	8/8/11 10:00	11.43	
	8/8/11 11:00	11.37	
	8/8/11 12:00	11.37	
	8/8/11 13:00	11.37	
	8/8/11 13:10	11.40	Vac truck not operating
	8/8/11 13:20	11.41	Vac truck not operating
	8/8/11 13:30	11.42	Vac truck not operating
	8/8/11 14:30	11.42	
	8/8/11 15:30	11.42	
	8/8/11 16:30	11.41	
	8/8/11 17:30	11.41	
	8/9/11 7:00	11.36	Vac truck not operating
	8/9/11 9:15	11.35	
	8/9/11 9:30	11.33	
	8/9/11 9:45	11.32	
MW-5	8/8/11 7:00	16.76	Vac truck not operating
	8/8/11 8:00	16.75	
	8/8/11 8:15	16.76	
	8/8/11 8:30	16.76	
	8/8/11 8:45	16.78	
	8/8/11 9:00	16.76	
	8/8/11 10:00	16.76	
	8/8/11 11:00	16.75	
	8/8/11 12:00	16.75	
	8/8/11 13:00	16.76	
	8/8/11 13:10	16.77	Vac truck not operating
	8/8/11 13:20	16.79	Vac truck not operating
	8/8/11 13:30	16.79	Vac truck not operating
	8/8/11 14:30	16.77	
	8/8/11 15:30	16.80	
	8/8/11 16:30	16.79	
	8/8/11 17:30	16.79	
	8/9/11 7:00	16.94	Vac truck not operating

Well	Date/Time	Depth to Water*	Comments
	8/9/11 9:15	16.95	
	8/9/11 9:30	16.96	
	8/9/11 9:45	16.96	
TP-1	8/8/11 7:00	5.33	Vac truck not operating
	8/8/11 8:00	5.70	
	8/8/11 8:15	5.84	
	8/8/11 8:30	6.25	
	8/8/11 8:45	6.76	
	8/8/11 9:00	7.05	
	8/8/11 10:00	8.17	
	8/8/11 11:00	9.49	
	8/8/11 12:00	11.08	
	8/8/11 13:00	12.05	
	8/8/11 13:10	12.06	Vac truck not operating
	8/8/11 13:20	12.06	Vac truck not operating
	8/8/11 13:30	12.04	Vac truck not operating
	8/8/11 14:30	12.59	
	8/8/11 15:30	12.87	
	8/8/11 16:30	13.11	
	8/8/11 17:30	13.24	
	8/9/11 7:00	13.00	Vac truck not operating
	8/9/11 9:15	13.19	
	8/9/11 9:30	13.26	
	8/9/11 9:45	13.27	
TP-2	8/8/11 7:00	5.26	Vac truck not operating
	8/8/11 8:00	5.65	
	8/8/11 8:15	5.86	
	8/8/11 8:30	6.21	
	8/8/11 8:45	6.67	
	8/8/11 9:00	6.98	
	8/8/11 10:00	8.11	
	8/8/11 11:00	9.43	
	8/8/11 12:00	11.16	
	8/8/11 13:00	12.00	
	8/8/11 13:10	12.00	Vac truck not operating
	8/8/11 13:20	12.00	Vac truck not operating
	8/8/11 13:30	12.00	Vac truck not operating
	8/8/11 14:30	12.50	
	8/8/11 15:30	12.83	
	8/8/11 16:30	13.05	
	8/8/11 17:30	13.24	
	8/9/11 7:00	12.95	Vac truck not operating
	8/9/11 9:15	13.18	
	8/9/11 9:30	13.25	
	8/9/11 9:45	13.25	

All measurements in feet

* Depth to water readings collected from top of casing

Table 5 - Surfactant Injection Summary Data
Gasoline Fueling Station – Royal Farms #1
2620 Mountain Road, Joppa, Maryland 21085

Surfactant Batch	Water (Gallons)	Surfactant (Gallons)	% Solution	Depth to Water TP-1*	Depth to Water TP-2*	Start Time	Stop Time	Duration (Minutes)	Injection Rate (Gallons per Minute)
1	250	9	3.47%	14.20	13.04	1018	1033	15	17.27
2	230	9	3.77%	13.22	12.87	1040	1100	20	11.95
3	266	9	3.27%	13.30	12.63	1105	1125	20	13.75
4	266	9	3.27%	12.95	12.35	1130	1140	10	27.50
5	262	13	4.73%	12.91	12.08	1155	1205	10	27.50
6	266	9	3.27%	12.15	11.83	1209	1218	9	30.56
7	266	9	3.27%	12.40	11.55	1223	1235	12	22.92
8	262	13	4.73%	11.58	11.25	1245	1245	10	27.50
9	262	13	4.73%	12.05	11.93	1302	1312	10	27.50
10	257	18	6.55%	11.95	11.55	1319	1325	6	45.83
11	257	18	6.55%	10.65	10.25	1331	1341	10	27.50
12	257	18	6.55%	9.85	9.89	1351	1401	10	27.50
13	257	18	6.55%	9.81	9.75	1403	1413	10	27.50
14	257	18	6.55%	9.69	9.25	1428	1438	10	27.50
15	260	15	5.45%	9.80	8.97	1442	1449	7	39.29
16	247	28	10.18%	8.56	8.38	1505	1512	7	39.29
17	248	27	9.82%	8.80	8.20	1513	1523	10	27.50
Day 1 Total	4370	253	5.47%	-	-	-	-	186	27.55
18	255	20	7.27%	8.00	7.81	856	902	6	45.83
19	255	20	7.27%	7.70	7.51	916	923	7	39.29
20	253	15	5.60%	7.54	7.19	936	943	7	38.29
21	253	22	8.00%	7.55	6.92	956	1003	7	39.29
22	255	22	7.94%	7.16	6.67	1020	1026	6	46.17
23	259	20	7.17%	7.03	6.39	1031	1037	6	46.50
24	263	16	5.73%	6.15	6.02	1047	1054	7	39.86
25	265	12	4.33%	5.90	5.88	1055	1105	10	27.70
26	265	10	3.64%	5.42	5.55	1106	1110	4	68.75
27	272	3	1.09%	5.21	5.11	1115	1125	10	27.50
28	272	3	1.09%	5.04	4.73	1305	1314	9	30.56
29	272	3	1.09%	NA	4.65	1318	1323	5	55.00
30	272	3	1.09%	4.84	4.11	1325	1330	5	55.00
31	272	3	1.09%	3.47	NA	1331	1336	4	68.75
32	272	3	1.09%	4.44	4.13	1337	1342	5	55.00
33	272	3	1.09%	4.20	3.92	1343	1348	5	55.00
34	272	3	1.09%	NA	3.89	1351	1356	5	55.00

Surfactant Batch	Water (Gallons)	Surfactant (Gallons)	% Solution	Depth to Water TP-1*	Depth to Water TP-2*	Start Time	Stop Time	Duration (Minutes)	Injection Rate (Gallons per Minute)
35	272	3	1.09%	4.30	3.70	1401	1406	5	55.00
36	272	3	1.09%	3.88	3.64	1413	1418	5	55.00
37	272	3	1.09%	3.61	3.56	1427	1432	5	55.00
38	272	2	0.73%	NA	NA	1445	1450	5	54.80
39	100	0	0.00%	NA	NA	1453	1455	2	50.00
40	100	0	0.00%	NA	NA	1502	1506	4	25.00
41	75	0	0.00%	NA	NA	1512	1514`	2	37.50
42	60	0	0.00%	NA	NA	1517	1519	2	30.00
43	50	0	0.00%	3.51	3.45	1522	1524	2	25.00
44	25	0	0.00%	3.51	3.44	1534	1536	2	12.50
Day 2 Total	5997	192	3.10%	-	-	-	-	142	44.20
Days 1 and 2 Total	10367	445	4.12%	-	-	-	-	328	35.87

All measurements in feet

* Depth to water readings collected from top of casing upon completion of each batch injection

Table 6 - Post-Injection Tank Field EFR Summary
Gasoline Fueling Station – Royal Farms #1
2620 Mountain Road, Joppa, Maryland 21085

Well	Date/Time	Depth to Water*	Comments
MW-1	8/11/11 7:00	16.83	Vac truck operating continuously
	8/11/11 8:00	16.83	
	8/11/11 9:00	16.83	
	8/11/11 10:00	16.83	
	8/11/11 11:00	16.83	
	8/11/11 12:00	16.83	
	8/11/11 13:00	16.85	
	8/11/11 14:00	16.85	
	8/11/11 15:00	16.85	
	8/11/11 16:00	16.84	
	8/11/11 16:30	16.85	
MW-2	8/11/11 7:00	16.11	Vac truck operating continuously
	8/11/11 8:00	16.10	
	8/11/11 9:00	16.07	
	8/11/11 10:00	16.05	
	8/11/11 11:00	16.03	
	8/11/11 12:00	16.00	
	8/11/11 13:00	16.05	
	8/11/11 14:00	15.98	
	8/11/11 15:00	15.94	
	8/11/11 16:00	16.00	
	8/11/11 16:30	15.98	
MW-3	8/11/11 7:00	6.83	Vac truck operating continuously
	8/11/11 8:00	6.83	
	8/11/11 9:00	6.84	
	8/11/11 10:00	6.83	
	8/11/11 11:00	6.84	
	8/11/11 12:00	6.85	
	8/11/11 13:00	6.86	
	8/11/11 14:00	6.87	
	8/11/11 15:00	6.90	
	8/11/11 16:00	6.92	
	8/11/11 16:30	6.93	
MW-4	8/11/11 7:00	11.64	Vac truck operating continuously
	8/11/11 8:00	11.65	
	8/11/11 9:00	11.65	
	8/11/11 10:00	11.65	
	8/11/11 11:00	11.65	
	8/11/11 12:00	11.64	
	8/11/11 13:00	11.63	
	8/11/11 14:00	11.64	
	8/11/11 15:00	11.64	
	8/11/11 16:00	11.64	
	8/11/11 16:30	11.63	
MW-5	8/11/11 7:00	16.78	Vac truck operating continuously
	8/11/11 8:00	16.74	
	8/11/11 9:00	16.69	
	8/11/11 10:00	16.65	
	8/11/11 11:00	16.61	
	8/11/11 12:00	16.57	

Well	Date/Time	Depth to Water*	Comments
	8/11/11 13:00	16.60	
	8/11/11 14:00	16.63	
	8/11/11 15:00	16.65	
	8/11/11 16:00	16.69	
	8/11/11 16:30	16.72	
TP-1	8/11/11 7:00	3.66	Vac truck operating continuously
	8/11/11 8:00	3.75	
	8/11/11 9:00	4.58	
	8/11/11 10:00	5.55	
	8/11/11 11:00	6.78	
	8/11/11 12:00	8.21	
	8/11/11 13:00	8.90	
	8/11/11 14:00	10.17	
	8/11/11 15:00	11.00	
	8/11/11 16:00	11.79	
	8/11/11 16:30	12.58	
TP-2	8/11/11 7:00	3.60	Vac truck operating continuously
	8/11/11 8:00	3.68	
	8/11/11 9:00	4.54	
	8/11/11 10:00	5.50	
	8/11/11 11:00	6.73	
	8/11/11 12:00	8.16	
	8/11/11 13:00	8.86	
	8/11/11 14:00	10.05	
	8/11/11 15:00	10.96	
	8/11/11 16:00	11.77	
	8/11/11 16:30	12.55	

All measurements in feet

* Depth to water readings collected from top of casing

APPENDIX C

BORING LOGS/MONITORING WELL COMPLETION REPORTS

Page 1 of Page 1	Boring / Well Completion Report	
Boring / Well ID: MW-4	**Permit Number**	**Permit Date**
Date Work Began: 6/10/11	**Date Work Ended:** 6/10/11	**AEC Project No. 05-056RF001**
Address: 2620 Mountain Road	**City / State:** Joppa, MD 21085	

Geologic Log	
Drilling Method: HSA/Split Spoon	**Drilling Fluid:** N/A
Boring Diameter (inches): 8”	**Drilling Contractor:** CR Hugo, Inc.

Depth from Surface		Description			
Feet	**Feet**	**Soil Classification**	**PID**	**Odor Comments**	**Sample Interval**
0	1	Asphalt/gravel fill	0		
1	3.5	Grayish brown sandy clay with gravel (GC)	0.1		
3.5	5.5	Red/gray tight clay (CL)	0		SS
5.5	8.5	Reddish brown clay (CL) with some gravel	0		
8.5	9.5	Red clay/sand w/ gravel (GC)	0		SS
9.5	10.5	Reddish brown sandy clay with gravel (GC)	0	Slight	SS
10.5	13.5	Reddish clay (CL), tight	0		
13.5	14.5	Gray clay (CL), tight, dry	0		SS
14.5	15	Red clay (CL), tight, moist	0		SS
15	15.5	Brown clayey sand with gravel (GC), wet	0		SS
15.5	18.5	Red/gray sandy clay (CL), moist/saturated	0		
18.5	20.5	Red/gray/brown clay very stiff (CL)	0		SS
20.5	23.5	Red sandy clay (CL), some saturation	0		
23.5	25.5	Purple clay (CL), very stiff w/ gray mottles	0		SS
25.5	28.5	Red/purple/brown clay (CL), moist/wet	0		
28.5	29.5	Grey clay (CL), very stiff, saturated	0		SS
29.5	30	Tan/brown clayey silt (MH) with sand, saturated	0		SS
30	30.5	Purple/gray/brown sandy clay (CL), tight	0		SS
30.5	32	Purple/gray/brown sandy clay (CL), tight (Terminated @ 32’)	0		

Water Level of Completed Well	
First water (ft. bgs): ~10’	**Date/Time Measured:** 6/10/11 11:00
Static Water (ft. bgs): 6.73’	**Date/Time Measured:** 6/30/11 09:05

Well Construction Details	
Well Diameter (inches)	**2”**
Depth to Top of Bentonite Seal (ft. bgs)	**3.5’**
Depth to Bottom of Bentonite Seal (ft. bgs)	**4.5’**
Depth to Top of Sand Pack (ft. bgs)	**4.5’**
Depth to Bottom of Sand Pack (ft. bgs)	**30.5’**
Depth to Top of Solid Casing (ft. bgs)	**0.5’**
Depth to Bottom of Solid Casing (ft. bgs)	**5.5’**
Depth to Top of Screen (ft. bgs)	**5.5’**
Depth to Bottom of Screen (ft. bgs)	**30.5’**
Solid Casing and Screen Material	**PVC**
Screen Slot Size	**0.020”**

Boring Location Sketch

See Attached Site Plan

GW - Well-graded gravels and gravel-sand mixtures, little or no fines. GP - Poorly graded gravels and gravel-sand mixtures, little or no fines.
GM - Silty gravels, gravel-sand-silt mixtures. GC - Clayey gravels, gravel-sand-clay mixtures. SW - Well-graded sands and gravelly sands, little or no fines
SP - Poorly graded sands and gravelly sands, little or no fines. SM - Silty sands, sand-silt mixtures. SC - Clayey sands, sand-clay mixtures.
ML - Inorganic silts, very fine sands, rock flour, silty or clayey fine sands. CL - Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays.
OL - Organic silts and organic silty clays of low plasticity. MH - Inorganic silts micaceous or diatomaceous fine sands or silts, elastic silts.
CH - Inorganic clays or high plasticity, fat clays. OH - Organic clays of medium to high plasticity. PT - Peat, muck, and other highly organic soils

Page 1 of Page 1	Boring / Well Completion Report	
Boring / Well ID: MW-5	**Permit Number**	**Permit Date**
Date Work Began: 6/10/11	**Date Work Ended:** 6/10/11	**AEC Project No. 05-056RF001**
Address: 2620 Mountain Road	**City / State:** Joppa, MD 21085	

Geologic Log	
Drilling Method: HSA/Split Spoon	**Drilling Fluid:** N/A
Boring Diameter (inches): 8”	**Drilling Contractor:** CR Hugo, Inc.

Depth from Surface		Description			
Feet	**Feet**	**Soil Classification**	**PID**	**Odor Comments**	**Sample Interval**
0	3.5	Light Brown clayey sand (SC) w/ some gravel	0		
3.5	4	Gray red brown sandy clay (CL), med stiff, wet	0		SS
4	5	Brown sandy clay with gravel (GC), wet, stiff	0		SS
5	5.5	Reddish brown clayey sand w/ gravel (GC), moist	0		
5.5	8.5	Reddish brown clayey sand w/ gravel (GC), wet	0		
8.5	9	Gray brown sandy clay (CL), saturated	0		SS
9	10.5	Reddish brown clayey sand w/ gravel (GC), wet	0		SS
10.5	13.5	Reddish brown sandy clay w/ gravel (GC), wet	0		
13.5	15.5	No recovery	NA		SS
15.5	18.5	Reddish brown sandy clay (CL), moist	0		
18.5	19	Reddish brown sandy clay w/ gravel (GC), saturated	0		SS
19	20.5	Gray clay with red mottles (CL), very stiff	0		SS
20.5	23.5	Red/Gray brown sandy clay (CL)	0		
23.5	25.5	Gray/Purple clay (CL), very stiff	0		SS
25.5	28.5	Gray/Brown/Purple sandy clay (CL)	0		
28.5	30	Dark gray organic clay (OL), stiff	0		SS
30	30.5	Gray sand (SP), saturated	0		SS
30.5	32	No recovery	NA		
		Boring terminated at 32’			

Water Level of Completed Well	
First water (ft. bgs): 14.25’	**Date/Time Measured:** 6/10/11 15:00
Static Water (ft. bgs): 13.37’	**Date/Time Measured:** 6/30/11 09:15

Well Construction Details	
Well Diameter (inches)	**2”**
Depth to Top of Bentonite Seal (ft. bgs)	**3.5’**
Depth to Bottom of Bentonite Seal (ft. bgs)	**4.5’**
Depth to Top of Sand Pack (ft. bgs)	**4.5’**
Depth to Bottom of Sand Pack (ft. bgs)	**30.5’**
Depth to Top of Solid Casing (ft. bgs)	**0.5’**
Depth to Bottom of Solid Casing (ft. bgs)	**5.5’**
Depth to Top of Screen (ft. bgs)	**5.5’**
Depth to Bottom of Screen (ft. bgs)	**30.5’**
Solid Casing and Screen Material	**PVC**
Screen Slot Size	**0.020”**

Boring Location Sketch

See Attached Site Plan

GW - Well-graded gravels and gravel-sand mixtures, little or no fines. GP - Poorly graded gravels and gravel-sand mixtures, little or no fines.
GM - Silty gravels, gravel-sand-silt mixtures. GC - Clayey gravels, gravel-sand-clay mixtures. SW - Well-graded sands and gravelly sands, little or no fines
SP - Poorly graded sands and gravelly sands, little or no fines. SM - Silty sands, sand-silt mixtures. SC - Clayey sands, sand-clay mixtures.
ML - Inorganic silts, very fine sands, rock flour, silty or clayey fine sands. CL - Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays.
OL - Organic silts and organic silty clays of low plasticity. MH - Inorganic silts micaceous or diatomaceous fine sands or silts, elastic silts.
CH - Inorganic clays or high plasticity, fat clays. OH - Organic clays of medium to high plasticity. PT - Peat, muck, and other highly organic soils

APPENDIX D

OIL EATER CLEANER/DEGREASER MATERIAL SAFETY DATA SHEET

GRAINGER FOR THE ONES WHO GET IT DONE

Close this window MSDS

Common Name: OIL EATER DEGREASER/CLEANER
Manufacturer: KAFKO INTERNATIONAL
MSDS Revision Date: 6/1/2008

Grainger Item Number(s): 4NHH6, 4NHH7, 4NHH8, 4NHH9
Manufacturer Model Number(s):

MSDS Table of Contents

Click the desired link below to jump directly to that section in the MSDS.

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION
SECTION 2 - INGREDIENTS
SECTION 3 - HEALTH HAZARD DATA
SECTION 4 - FIRST AID MEASURES
SECTION 5 - FIRE AND EXPLOSION HAZARD DATA
SECTION 6 - ACCIDENTAL RELEASE MEASURES
SECTION 7 - HANDLING & STORAGE
SECTION 8 - EXPOSURE CONTRIOLS & PERSONAL PROTECTION
SECTION 9 - PHYSICAL DATA
SECTION 10 - REACTIVITY DATA
SECTION 11 - TOXICOLOGICAL DATA
SECTION 12 - ECOLOGICAL DATA
SECTION 13 - DISPOSAL CONSIDERATIONS
SECTION 14 - TRANSPORT INFORMATION
SECTION 15 - REGULATORY INFORMATION
SECTION 16 - OTHER INFORMATION

OIL EATER "HUNGRY TO CLEAN"

MATERIAL SAFETY DATA SHEET

OIL EATER(R*) CLEANER/DEGREASER

IN COMPLIANCE WITH

EFFECTIVE DATE: JUNE 2008

FEDERAL REGULATIONS: CFR 29 AND 42

STATE: ILLINOIS PUBLIC ACT 83-240

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION

top

MANUFACTURER NAME: KAFKO INTERNATIONAL. LTD.

ADDRESS:
3555 W HOWARD ST.
SKOKIE, IL. 60076-4012

PHONE: (847) 763-0333

FAX: (847) 763-0334

EMERGENCY CONTACT:
CHEMTREC: (800) 424-9300

CHEMICAL NAME: N/A MIXTURE

COMMON NAME: OIL EATER(R*) DEGREASER/CLEANER

CHEMICAL FAMILY: AQUEOUS SURFACTANT SOLUTION

FORMULA: N/A - MIXTURE

HAZARD CLASSIFICATION:
NON-HAZARDOUS, NON-CORROSIVE, AND NON-TOXIC

NFPA RATING:
HEALTH 1
FLAMMABILITY 0
REACTIVITY 1

SECTION 2 - INGREDIENTS

top

MATERIAL	CAS #	% BY WT.	PEL/TLV
SODIUM METASILICATE - PENTAHYDRATE	6834-92-0	<5%	2 MG/M3 8 HR TWA AS NAOH
2 BUTOXYETHANOL	111-76-2	<5%	25 PPM SKIN
LINEAR ALCOHOL ETHOXYLATE	68439-46-3	<5%	NE

SECTION 3 - HEALTH HAZARD DATA

top

EMERGENCY OVERVIEW:
OIL EATER(R*) CLEANER DEGREASER IS NON-CORROSIVE, NON-TOXIC, AND DOES NOT POSE ANY KNOWN ACUTE OR CHRONIC PHYSICAL HAZARDS.

CARCINOGENIC: THIS PRODUCT IS NOT CONSIDERED A CARCINOGEN

EFFECTS OF OVEREXPOSURE:

SKIN:
NON-CORROSIVE. NO EFFECT UNDER NORMAL USE. PRODUCT MAY CAUSE IRRITATION OR RASH TO THOSE WITH HYPERSENSITIVITY. PROLONGED CONTACT MAY RESULT IN DRYNESS AND ULCERATION.

EYES: CAN CAUSE EYE IRRITATION.

INGESTION:
NON-TOXIC PER CONSUMER PRODUCT SAFETY COMMISSION AND FHSA STANDARDS. ACUTE ORAL LD50 GREATER THAN 5 G/KG.

INHALATION:
NO EFFECT UNDER NORMAL USE. EXCESSIVE INHALATION MAY CAUSE IRRITATION OF THE RESPIRATORY PASSAGES

SECTION 4 - FIRST AID MEASURES

top

SKIN CONTACT:
REMOVE CONTAMINATED CLOTHING. RINSE SKIN WITH WARM WATER FOR 15 MINUTES. IF IRRITATION OCCURS SEEK MEDICAL ATTENTION.

EYE CONTACT:

FLUSH WITH WATER FOR 15 MINUTES. IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION.

INGESTION: DRINK LARGE QUANTITIES OF WATER. CALL PHYSICIAN IMMEDIATELY.

INHALATION:
REMOVE TO FRESH AIR IMMEDIATELY. IF IRRITATION PERSISTS, CONTACT PHYSICIAN.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

top

FLAMMABILITY OF THE PRODUCT: NON FLAMMABLE

FLASH POINT: NONE TO BOILING

EXTINGUISHING MEDIA: DRY CHEMICAL, WATER FOG, CO2, SAND

FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS

PRODUCTS OF COMBUSTION: CARBON OXIDES

FIRE HAZARDS IN THE PRESENCE OF OTHER CHEMICALS:
NO SPECIFIC INFORMATION IS AVAILABLE

UNUSUAL FIRE HAZARDS: NONE EXPECTED

SECTION 6 - ACCIDENTAL RELEASE MEASURES

top

SMALL SPILL:
ABSORB WITH INDUSTRIAL ABSORBENT. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. RINSE RESIDUE TO AVOID SLIPPERY CONDITIONS.

LARGE SPILL:
NON-FLAMMABLE MATERIAL. WEAR CHEMICAL RESISTANT GLOVES, BOOTS AND GOGGLES. STOP THE SOURCE OF THE SPILL. COLLECT THE SPILL USING MECHANICAL MEANS.

WASTE DISPOSAL METHOD:
FULLY WATER-SOLUBLE. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION 7 - HANDLING & STORAGE

top

PRECAUTIONS: STORE CONTAINERS UPRIGHT IN COOL DRY PLACE

STORAGE:
STORE PRODUCT IN ORIGINAL CONTAINERS. DO NOT STORE IN METAL VESSELS

OTHER PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN

SECTION 8 - EXPOSURE CONTRIOLS & PERSONAL PROTECTION

top

ENGINEERING CONTROLS:
NO CONTROL MEASURES ARE REQUIRED UNDER NORMAL CONDITIONS. IF LARGE QUANTITIES ARE INVOLVED USE NIOSH OR MSHA APPROVED RESPIRATOR LIMITED PERSONAL EXPOSURES EXIST WITH THIS PRODUCT. AS ALWAYS KEEP AIRBONE VAPORS BELOW TLV LIMITS. ENSURE THAT PROPER WORK-STATION SAFETY MECHANISMS ARE OPERATIVE AND TESTED INCLUDING SHOWERS AND EYEWASH STATIONS.

PERSONAL PROTECTION:
SAFETY GLASSES ARE RECOMMENDED, CHEMICAL RESISTANT GLOVES APRONS AND SUITS ARE OPTIONAL FOR THOSE WITH DERMATOLOGICAL SENSITIVITY.

SECTION 9 - PHYSICAL DATA

BOILING POINT: 200 DEG. F

VOC CONTENT: .42 LBS/GAL

VAPOR PRESSURE: 4.0 MM Hg @ 77 F (ASTM D-2879)

SOLUBILITY IN WATER: COMPLETE

APPEARANCE AND ODOR: CLEAR SOLUTION WITH A CHARACTERISTIC ODOR

SPECIFIC GRAVITY: 1.038 (ASTM 112H @ 20 DEG. C)

EVAPORATION RATE: 1.2 (WATER=1.0)

pH: 12.4 - 13.0

SECTION 10 - REACTIVITY DATA

CONDITIONS TO AVOID: EXTREME HEAT

STABILITY: STABLE

INCOMPATIBILITY: ACIDS, STRONG OXIDIZERS

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CORROSIVITY: NON-CORROSIVE

SECTION 11 - TOXICOLOGICAL DATA

ROUTES OF ENTRY: EYES, SKIN, INGESTION.

TOXICITY TO ANIMALS:
NON-TOXIC PER CONSUMER PRODUCT SAFETY COMMISSION AND FHSA STANDARDS. ACUTE ORAL LD50 GREATER THAN 5 G/KG

CHRONIC EFFECT ON HUMANS: NONE KNOWN

SPECIAL REMARKS: NONE

SECTION 12 - ECOLOGICAL DATA

ECOTOXICITY:
NON-TOXIC TO AQUATIC ORGANISMS FATHEAD MINNOW (PIMEPHALES PROMELAS) LC50 > 200 MG/L AT 96 HOURS

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. RINSE RESIDUE TO AVOID SLIPPERY CONDITIONS.

SECTION 14 - TRANSPORT INFORMATION

DOT CLASSIFICATION: NOT APPLICABLE - NON-REGULATED; NON-HAZARDOUS

SECTION 15 - REGULATORY INFORMATION

top

ALL COMPONENTS USED IN THIS COMPOUND APPEAR ON THE TSCA INVENTORY

FEDERAL/NATIONAL: 2 BUTOXYETHANOL

THIS CHEMICAL IS SUBJECT TO S.A.R.A. TITLE III SECTION 313 PART 372 REPORTING. THE HAZARD COMMUNICATION STANDARD REQUIRES THAT MIXTURES SUCH AS THIS PRODUCT BE ASSUMED TO PRESENT THE SAME HEALTH HAZARDS, AS DO THE COMPONENTS THAT CONSTITUTE AT LEAST 1% OF THE MIXTURE. OSHA HAS, HOWEVER, NOTED THAT THE HEALTH HAZARDS OF THE INDIVIDUAL COMPONENTS MAY BE REDUCED OR ALTERED BY INCLUDING THEM IN A MIXTURE.

HMIS (USA):

HEALTH	1
FIRE	0
REACTIVITY	1
PERSONAL PROTECTION	0

SECTION 16 - OTHER INFORMATION

top

PERFORMANCE CERTIFICATIONS:

AIRCRAFT:
PASSED BOEING D6-17487 REV P EXTERIOR AND GENERAL CLEANERS AND LIQUID WAXES, POLISHES AND POLISHING COMPOUNDS WHEN DILUTED WITH 5 PARTS WATER.

FOR FURTHER QUESTIONS REGARDING THE SAFE USE OF THIS PRODUCT CONSULT OUR WEB PAGE WWW.OILEATER.COM

THE INFORMATION HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE AS OF THE DATE OF THE PRESENTATION OF THIS SAFETY DATA SHEET. NO WARRANTY OR REPRESENTATION, EXPRESSED OR IMPLIED, IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE FOREGOING DATA AND SAFETY INFORMATION. THE USER ASSUMES ALL LIABILITY FOR ANY DAMAGE OR INJURY RESULTING FROM ABNORMAL USES, FOR ANY FAILURE TO ADHERE TO RECOMMENDED PRACTICES, OR FOR ANY HAZARDS INHERENT IN THE NATURE OF THE PRODUCT.

APPENDIX E

WASTE DISPOSAL MANIFESTS

MD. Oil Operations Permit No: 2009-OPT-31821
EPA Identification No: MDR-000522794
Federal ID No: 52-2014536

Petroleum Management, Inc.

5218 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-354-0201

Bill of Lading/Manifest **№ 4182**

Generator/Shipper: Royal Farms			Billing Name: Advanta Environmental		
Site Address: 2620 Mountain Rd			Address:		
City: Solla	State: MD	Zip:	City:	State:	Zip:
Phone: ( )	Contact:		Phone: ( )	Contact:	

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

Description:	Gallons	Description:	Gallons	Description:	Gallons
Gasoline, 3, UN1203, PGII		Hazardous Waste, Liquid, 9 NA3082, PGIII		JP#4	
#2 Fuel Oil, 3, NA1993, PGIII		Hazardous Waste, Solid, 9 NA3077, PGIII		JP#5	
#4 Fuel Oil, 3 NA1993, PGIII		Paint Thinners, 3, UN1263, PGI		Jet A	
#6 Fuel Oil, 3, NA1993, PGIII		Ethylene Glycol, 9, UN3082, PGIII		Sludge	
Diesel, 3, NA1993, PGIII		Lube Oil		Petroleum Contaminated Water	3000
Flammable Liquids, NOS, 3, UN1993, PGI		Waste Oil		Other:	
Corrosive Liquids, NOS, 8, UN1760, PGII		Kerosene		Other:	
No. of Drums		No. of Tanks:		Other:	
Scale Weights (Soil): Total: (Tons)		Tare: (Tons)		Net: (Tons)	

Service Description:

PLACARDS TENDERED: ☐ YES ☒ NO

EMERGENCY CONTACT (410) 760-3703

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCB'S). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Petroleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator/Shipper Authorized Agent (Print): [illegible] Date of Service: 5-5-11

X Generator/Shipper Authorized Agent Signature: [illegible]

HAULER/CARRIER INFORMATION

Co. Name: Petroleum Management, Inc.			Driver Name (print): Raymond Davis
Street: 5218 Curtis Avenue			Driver Signature: Raymond Davis
City: Baltimore	State: MD	Zip: 21226	Phone:

The above mentioned materials have been received by this facility and will be handled in accordance with all applicable rules and regulations. All quantities are subject to final verification by this facility and are indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name:

Acceptance Signature:

Phone:

Total Quantity Received:

White - Original Yellow - Transporter Pink - Facility Gold - Customer

MD. Oil Operations Permit No: 2009-OPT-31821
EPA Identification No: MDR-000522794
Federal ID No: 52-2014536

Petroleum Management, Inc.

5218 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-354-0201

Bill of Lading/Manifest **№ 4600**

Generator/Shipper: RF20			Billing Name:		
Site Address: 2620			Address:		
City:	State:	Zip:	City:	State:	Zip:
Phone: ( )	Contact:		Phone: ( )	Contact:	

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

Description:	Gallons	Description:	Gallons	Description:	Gallons
Gasoline, 3, UN1203, PGII		Hazardous Waste, Liquid, 9 NA3082, PGIII		JP#4	
#2 Fuel Oil, 3, NA1993, PGIII		Hazardous Waste, Solid, 9 NA3077, PGIII		JP#5	
#4 Fuel Oil, 3 NA1993, PGIII		Paint Thinners, 3, UN1263, PGI		Jet A	
#6 Fuel Oil, 3, NA1993, PGIII		Ethylene Glycol, 9, UN3082, PGIII		Sludge	
Diesel, 3, NA1993, PGIII		Lube Oil		Petroleum Contaminated Water	
Flammable Liquids, NOS, 3, UN1993, PGI		Waste Oil		Other:	
Corrosive Liquids, NOS, 8, UN1760, PGII		Kerosene		Other:	
No. of Drums		No. of Tanks:		Other:	
Scale Weights (Soil): Total: (Tons)		Tare: (Tons)		Net: (Tons)	

Service Description:

PLACARDS TENDERED: ❑ YES ❑ NO

EMERGENCY CONTACT (410) 760-3703

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCB'S). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Petroleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator/Shipper Authorized Agent (Print) — Date of Service

X Generator/Shipper Authorized Agent Signature

HAULER/CARRIER INFORMATION

Co. Name: **Petroleum Management, Inc.**		Driver Name (print)
Street: **5218 Curtis Avenue**		Driver Signature
City: **Baltimore**	State: **MD** Zip: **21226**	Phone

The above mentioned materials have been received by this facility and will be handled in accordance with all applicable rules and regulations. All quantities are subject to final verification by this facility and are indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name

Acceptance Signature

Phone — Total Quantity Received

White - Original Yellow - Transporter Pink - Facility Gold - Customer

MD. Oil Operations Permit No: 2009-OPT-31621
EPA Identification No: MDR-000522794
Federal ID No: 52-2014536

Petroleum Management, Inc.

5218 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-354-0201

Bill of Lading/Manifest **№ 4109**

Generator/Shipper: Royal Farms		Billing Name: Advantage Environmental	
Site Address: 2620 Pleasantville		Address:	
City: Joppa	State: MD Zip:	City:	State: Zip:
Phone: ( )	Contact:	Phone: ( )	Contact:

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

Description:	Gallons	Description:	Gallons	Description:	Gallons
Gasoline, 3, UN1203, PGII		Hazardous Waste, Liquid, 9 NA3082, PGIII		JP#4	
#2 Fuel Oil, 3, NA1993, PGIII		Hazardous Waste, Solid, 9 NA3077, PGIII		JP#5	
#4 Fuel Oil, 3 NA1993, PGIII		Paint Thinners, 3, UN1263, PGI		Jet A	
#6 Fuel Oil, 3, NA1993, PGIII		Ethylene Glycol, 9, UN3082, PGIII		Sludge	
Diesel, 3, NA1993, PGIII		Lube Oil		Petroleum Contaminated Water	1500
Flammable Liquids, NOS, 3, UN1993, PGI		Waste Oil		Other:	
Corrosive Liquids, NOS, 8, UN1760, PGII		Kerosene		Other:	
No. of Drums		No. of Tanks:		Other:	
Scale Weights (Soil): Total: (Tons)		Tare: (Tons)		Net: (Tons)	

Service Description:

PLACARDS TENDERED: ☐ YES ☒ NO

EMERGENCY CONTACT (410) 760-3703

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCB'S). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Petroleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator/Shipper Authorized Agent (Print): [illegible] Date of Service: 4-8-11

X Generator/Shipper Authorized Agent Signature: [illegible]

HAULER/CARRIER INFORMATION

Co. Name: **Petroleum Management, Inc.**			Driver Name (print): Raymond Davis
Street: **5218 Curtis Avenue**			Driver Signature: Raymond Davis
City: **Baltimore**	State: **MD**	Zip: **21226**	Phone:

The above mentioned materials have been received by this facility and will be handled in accordance with all applicable rules and regulations. All quantities are subject to final verification by this facility and are indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name:

Acceptance Signature:

Phone: | Total Quantity Received:

White - Original Yellow - Transporter Pink - Facility Gold - Customer

Petroleum Management, Inc.

MD. Oil Operations Permit No: 2009-OPT-31821
EPA Identification No: MDR-000522794
Federal ID No: 52-2014536

5218 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-354-0201

Bill of Lading/Manifest **№ 4187**

Generator/Shipper: Royal Farms			Billing Name: Advantage Environmental		
Site Address: 2620 Washington Rd			Address:		
City: Joppa	State: MD	Zip:	City:	State:	Zip:
Phone: (410) 574-6750	Contact: Jeff		Phone: ( )	Contact:	

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

Description:	Gallons	Description:	Gallons	Description:	Gallons
Gasoline, 3, UN1203, PGII		Hazardous Waste, Liquid, 9 NA3082, PGIII		JP#4	
#2 Fuel Oil, 3, NA1993, PGIII		Hazardous Waste, Solid, 9 NA3077, PGIII		JP#5 130	
#4 Fuel Oil, 3 NA1993, PGIII		Paint Thinners, 3, UN1263, PGI		Jet A	
#6 Fuel Oil, 3, NA1993, PGIII		Ethylene Glycol, 9, UN3082, PGIII		Sludge	
Diesel, 3, NA1993, PGIII		Lube Oil		Petroleum Contaminated Water	305
Flammable Liquids, NOS, 3, UN1993, PGI		Waste Oil		Other:	
Corrosive Liquids, NOS, 8, UN1760, PGII		Kerosene		Other:	
No. of Drums		No. of Tanks:		Other:	
Scale Weights (Soil): Total: (Tons)		Tare: (Tons)		Net: (Tons)	

Service Description: P/O Wells [illegible]

PLACARDS TENDERED: ☐ YES ☒ NO

EMERGENCY CONTACT (410) 760-3703

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCB'S). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Petroleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator/Shipper Authorized Agent (Print) — Date of Service 8-9-11

X Generator/Shipper Authorized Agent Signature

HAULER/CARRIER INFORMATION

Co. Name: **Petroleum Management, Inc.**			Driver Name (print): [illegible]
Street: **5218 Curtis Avenue**			Driver Signature: [illegible]
City: **Baltimore**	State: **MD**	Zip: **21226**	Phone:

The above mentioned materials have been received by this facility and will be handled in accordance with all applicable rules and regulations. All quantities are subject to final verification by this facility and are indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name	
Acceptance Signature	
Phone	Total Quantity Received

White - Original Yellow - Transporter Pink - Facility Gold - Customer

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1.					
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year

APPENDIX F

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Soil
Client ID:	**MW-4-9'**	Date Sampled:	06/10/11
Site:	**RF-1**	Date Received:	06/17/11
Job No:	05-056 RF001	Date Analyzed:	06/22/11

EPA Method 8260 Units: ug/Kg (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	< 5.0
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	< 5.0	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 5.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	< 5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	< 5.0
994-05-8	**Tert-amyl metyl ether TAME**	< 5.0	95-47-6	**o-xylene**	< 5.0
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	< 5.0
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	< 5.0
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	< 5.0
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	< 5.0	99-87-6	4-Isopropyltoluene	< 5.0
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	< 5.0
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	< 0.5	mg/Kg	EPA 8015M	0.5	06/23/11
TPH - DRO	< 10	mg/Kg	EPA 8015M	10	06/24/11

*** **Oxygenates & BTEX in bold**

6/26/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Soil
Client ID:	**MW-5-5'**	Date Sampled:	06/10/11
Site:	**RF-1**	Date Received:	06/17/11
Job No:	05-056 RF001	Date Analyzed:	06/22/11

EPA Method 8260 Units: ug/Kg (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	< 5.0
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	< 5.0	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 5.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	< 5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	< 5.0
994-05-8	**Tert-amyl metyl ether TAME**	< 5.0	95-47-6	**o-xylene**	< 5.0
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	< 5.0
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	< 5.0
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	< 5.0
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	< 5.0	99-87-6	4-Isopropyltoluene	< 5.0
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	< 5.0
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	< 0.5	mg/Kg	EPA 8015M	0.5	06/23/11
TPH - DRO	< 10	mg/Kg	EPA 8015M	10	06/24/11

*** **Oxygenates & BTEX in bold**

6/26/2011

Approved Date

Advantage Environmental Consultants, LLC
8610 Washington Blvd., Suite 217 Jessup, Maryland 20794 Phone/Fax: (301) 776-0500/(301) 776-1123

Environmental Sample Chain-of-Custody Record

Page of

CLIENT: Loyal Farm
TURN-AROUND TIME: Standard
Job Number: 05-056-R001
Site: RF-1
Sampler (s): Tom Ruen

Analyses Requested: DRO/ORO Comb, Volatiles 8260

Section to be completed by Laboratory: Initials: Temp: Custody seal Y N Sample Storage

Sample ID	Date	Time	Comp	Grab	Matrix	Preserv. pH	# Bottles	DRO/ORO Comb	Volatiles 8260	Comments	VOA ONLY Air Bubbles (Y or N)	pH	TPH Chlorine Check Na2S2O3
MW-4-9'	6/11/11	1600		X	Soil	—	1	X	X				
MW-5-5'	6/11/11	1215		X	Soil	—	1	X	X				

Relinquished By: [signature] Date/Time 6/11/11 1700
Received By:
Date/Time
Relinquished By: [signature] Date/Time
Received By Laboratory: [signature] Date/Time 06/17/11
Report Results To: truen@aec-env.com
Fax:

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-1**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	< 5.0
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	16	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 5.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	< 5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	< 5.0
994-05-8	**Tert-amyl metyl ether TAME**	< 5.0	95-47-6	**o-xylene**	< 5.0
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	< 5.0
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	< 5.0
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	< 5.0
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	< 5.0	99-87-6	4-Isopropyltoluene	< 5.0
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	< 5.0
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	< 0.5	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	< 0.5	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-2**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	< 5.0
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	250	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 730.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	500
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	11
994-05-8	**Tert-amyl metyl ether TAME**	< 20	95-47-6	**o-xylene**	73
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	98
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	8.0
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	54
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	80	99-87-6	4-Isopropyltoluene	5.9
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	140
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	2.5	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	0.8	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-3**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**	<	5.0
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		8.8	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**	<	5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**	<	5.0
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**	<	5.0
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene	<	5.0
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene	<	5.0
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene	<	5.0
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**	<	5.0	99-87-6	4-Isopropyltoluene	<	5.0
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		13
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected		Units	Method	PQL	Date Analyzed
TPH - GRO	<	0.5	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	<	0.5	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-4**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	< 5.0
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	< 5.0	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 5.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	< 5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	< 5.0
994-05-8	**Tert-amyl metyl ether TAME**	< 5.0	95-47-6	**o-xylene**	< 5.0
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	< 5.0
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	< 5.0
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	< 5.0
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	< 5.0	99-87-6	4-Isopropyltoluene	< 5.0
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	13
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	< 0.5	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	< 0.5	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-5**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		260
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	5.0	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		680
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		2600
994-05-8	**Tert-amyl metyl ether TAME**	<	20	95-47-6	**o-xylene**		1500
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		41
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		380
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		1200
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		52	99-87-6	4-Isopropyltoluene		25
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		550
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	1.5	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	4.7	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**TP-1**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		630
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		52	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		800
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		970
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**		690
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		60
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		190
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		580
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		24	99-87-6	4-Isopropyltoluene		13
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		150
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	4.7	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	0.9	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**TP-2**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Job No:	05-056	Date Analyzed:	07/05/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected	CAS Number	Compound	Concentration Detected
75-71-8	Dichlorodifluoromethane	< 5.0	108-88-3	**Toluene**	1400
74-87-3	Chloromethane	< 5.0	10061-02-(	Trans-1,3-dichloropropene	< 5.0
75-01-4	Vinyl chloride	< 5.0	79-00-5	1,1,2-Trichloroethane	< 5.0
74-83-9	Bromomethane	< 5.0	108-10-1	4-Methyl-2-pentanone	< 5.0
75-00-3	Chloroethane	< 5.0	591-78-6	2-Hexanone	< 5.0
75-69-4	Trichlorofluoromethane	< 5.0	127-18-4	Tetrachloroethene	< 5.0
75-35-4	1,1-Dichloroethene	< 5.0	142-28-9	1,3-Dichloropropane	< 5.0
75-65-0	**Tert-butanol; TBA**	< 50	124-48-1	Dibromochloromethane	< 5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	< 5.0	106-93-4	1,2-Dibromoethane	< 5.0
75-09-2	Methylene chloride	< 5.0	108-90-7	Chlorobenzene	< 5.0
156-60-5	Trans-1,2-dichloroethene	< 5.0	630-20-6	1,1,1,2-Tetrachloroethane	< 5.0
108-20-3	**Isopropyl ether DIPE**	< 20	100-41-4	**Ethylbenzene**	3300
637-92-3	**Ethyl-tert-butyl ether ETBE**	< 20	108-38-3	**m,p-xylene**	5700
994-05-8	**Tert-amyl metyl ether TAME**	< 5.0	95-47-6	**o-xylene**	2000
75-85-4	**Tert-amyl alcohol TAA**	< 200	100-42-5	Styrene	< 5.0
75-34-3	1,1-Dichloroethane	< 5.0	75-25-2	Bromoform	< 5.0
67-64-1	Acetone	< 5.0	98-82-8	Isopropylbenzene	230
75-15-0	Carbon disulfide	< 5.0	108-86-1	Bromobenzene	< 5.0
594-20-7	2,2-Dichloropropane	< 5.0	79-34-5	1,1,2,2-Tetrachloroethane	< 5.0
156-59-2	Cis-1,2-dichloroethene	< 5.0	96-18-4	1,2,3-Trichloropropane	< 5.0
75-27-4	Bromochloromethane	< 5.0	103-65-1	N-propylbenzene	< 5.0
67-66-3	Chloroform	< 5.0	95-49-8	2-Chlorotoluene	< 5.0
71-55-6	1,1,1-Trichloroethane	< 5.0	106-43-4	4-Chlorotoluene	< 5.0
56-23-5	Carbon tetrachloride	< 5.0	108-67-8	1,3,5-Trimethylbenzene	410
78-3-93	2-Butanone	< 5.0	98-06-6	Tert-butylbenzene	< 5.0
563-58-6	1,1-Dichloropropene	< 5.0	120-82-1	1,2,4-Trimethylbenzene	1500
108-05-4	Vinyl Acetate	< 5.0	135-98-8	Sec-butylbenzene	< 5.0
110-75-8	2-Chloroethylvinyl ether	< 5.0	541-73-1	1,3-Dichlorobenzene	< 5.0
71-43-2	**Benzene**	100	99-87-6	4-Isopropyltoluene	49
107-06-2	1,2-Dichloroethane	< 5.0	106-46-7	1,4-Dichlorobenzene	< 5.0
79-01-6	Trichloroethene	< 5.0	95-50-1	1,2-Dichlorobenzene	< 5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	< 20	104-51-8	n-Butylbenzene	< 5.0
78-87-5	1,2-Dichloropropane	< 5.0	96-12-8	1,2-Dibromo-3-chloropropan	< 5.0
74-95-3	Dibromomethane	< 5.0	120-82-1	1,2,4-Trichlorobenzene	< 5.0
75-27-4	Bromodichloromethane	< 5.0	87-68-3	Hexachlorobutadiene	< 5.0
10061-01-5	Cis-1,3-dichloropropene	< 5.0	91-20-3	Naphthalene	1100
			87-61-6	1,2,3-Trichlorobenzene	< 5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	27	mg/L	EPA 8015M	0.5	07/06/11
TPH - DRO	6.9	mg/L	EPA 8015M	0.5	07/07/11

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-1**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Project No:	05-056	Date Analyzed:	07/05/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**	<	1.0
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**	<	1.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**	<	1.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**	<	1.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform	<	1.0	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene	<	1.0
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene	<	1.0
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene		150
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell
Environmental, Inc.
8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-2a**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Project No:	05-056	Date Analyzed:	07/05/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**	<	1.0
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**	<	1.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**	<	1.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**	<	1.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform		7.6	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene	<	1.0
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene	<	1.0
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene	<	1.0
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-2b**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Project No:	05-056	Date Analyzed:	07/05/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**	<	1.0
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**	<	1.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**	<	1.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**	<	1.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform		7.6	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene	<	1.0
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene	<	1.0
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene	<	1.0
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-3**	Date Sampled:	06/30/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	07/01/11
Project No:	05-056	Date Analyzed:	07/05/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**	<	1.0
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**	<	1.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**	<	1.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**	<	1.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform	<	1.0	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene	<	1.0
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene	<	1.0
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene	<	1.0
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

7/8/2011

Approved Date

Advantage Environmental Consultants, LLC
8610 Washington Blvd., Suite 217 Jessup, Maryland 20794 Phone/Fax: (301) 776-0500/(301) 776-1123

Environmental Sample Chain-of-Custody Record

CLIENT: AEC

TURN-AROUND TIME: Sta...

Job Number: 05-056

Site: EF-1

Sampler (s): BSR

Analyses Requested: [illegible] | [illegible] | TPH D26/D50 ext. 8015

Section to be completed by Laboratory: Initials: Temp: Custody seal: Y N Sample Storage:

Sample ID	Date	Time	Comp	Grab	Matrix	Preserv. pH	# Bottles	[illegible]	[illegible]	TPH D26/D50 ext. 8015				Comments	VOA ONLY Air Bubbles (Y or N)	pH	TPH Chlorine Check Na2S2O3
PW-1	6/30/11	0900		X	H2O	HCl	2	X						*			
PW-2		0955															
PW-2L		0950															
PW-3		0952															
MW-1		1215					3		X	X							
MW-2		1305															
MW-3		1240															
MW-4		1105															
MW-5		1150															
TP-1		1130															
TP-2		1105															

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/1/11 0800		
Relinquished By:	Date/Time	Received By Laboratory:	Date/Time
		[signature]	7/1/11

Report Results To: [illegible]@aec-enviro.com
JStein@aec-enviro.com

Fax:

* Stop negative

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-1**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**	<	5.0
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		71	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**	<	5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		11
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**	<	5.0
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene	<	5.0
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		6.2
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		18
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**	<	5.0	99-87-6	4-Isopropyltoluene	<	5.0
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		26
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected		Units	Method	PQL	Date Analyzed
TPH - GRO	<	0.5	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	<	0.5	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-2**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		7.5
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		440	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**		45	100-41-4	**Ethylbenzene**		370
637-92-3	**Ethyl-tert-butyl ether ETBE**		14	108-38-3	**m,p-xylene**		40
994-05-8	**Tert-amyl metyl ether TAME**	<	20	95-47-6	**o-xylene**		11
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		58
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		31
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		38
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		80	99-87-6	4-Isopropyltoluene	<	5.0
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		47
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	2.6	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	0.5	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-3**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		100
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		28	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		43
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		170
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**		67
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		10
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		60
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		102
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**	<	5.0	99-87-6	4-Isopropyltoluene		16
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		38
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected		Units	Method	PQL	Date Analyzed
TPH - GRO	<	0.5	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	<	0.5	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-4**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**	<	5.0
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	5.0	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**	<	5.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		9.3
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**	<	5.0
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene	<	5.0
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene	<	5.0
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		14
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**	<	5.0	99-87-6	4-Isopropyltoluene	<	5.0
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		18
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected		Units	Method	PQL	Date Analyzed
TPH - GRO	<	0.5	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	<	0.5	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**MW-5**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**	<	5.0
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**		100	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		120
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		32
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**		40
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		24
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		22
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		130
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		11	99-87-6	4-Isopropyltoluene	<	5.0
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		110
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected		Units	Method	PQL	Date Analyzed
TPH - GRO		0.9	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	<	0.5	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**TP-1**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		340
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	5.0	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		700
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		1400
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**		920
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		111
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		350
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		500
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		20	99-87-6	4-Isopropyltoluene		43
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		70
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	14	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	2.8	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**TP-2**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Job No:	05-056	Date Analyzed:	09/10/11

EPA Method 8260 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	5.0	108-88-3	**Toluene**		330
74-87-3	Chloromethane	<	5.0	10061-02-(	Trans-1,3-dichloropropene	<	5.0
75-01-4	Vinyl chloride	<	5.0	79-00-5	1,1,2-Trichloroethane	<	5.0
74-83-9	Bromomethane	<	5.0	108-10-1	4-Methyl-2-pentanone	<	5.0
75-00-3	Chloroethane	<	5.0	591-78-6	2-Hexanone	<	5.0
75-69-4	Trichlorofluoromethane	<	5.0	127-18-4	Tetrachloroethene	<	5.0
75-35-4	1,1-Dichloroethene	<	5.0	142-28-9	1,3-Dichloropropane	<	5.0
75-65-0	**Tert-butanol; TBA**	<	50	124-48-1	Dibromochloromethane	<	5.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	5.0	106-93-4	1,2-Dibromoethane	<	5.0
75-09-2	Methylene chloride	<	5.0	108-90-7	Chlorobenzene	<	5.0
156-60-5	Trans-1,2-dichloroethene	<	5.0	630-20-6	1,1,1,2-Tetrachloroethane	<	5.0
108-20-3	**Isopropyl ether DIPE**	<	20	100-41-4	**Ethylbenzene**		660
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	20	108-38-3	**m,p-xylene**		1300
994-05-8	**Tert-amyl metyl ether TAME**	<	5.0	95-47-6	**o-xylene**		870
75-85-4	**Tert-amyl alcohol TAA**	<	200	100-42-5	Styrene	<	5.0
75-34-3	1,1-Dichloroethane	<	5.0	75-25-2	Bromoform	<	5.0
67-64-1	Acetone	<	5.0	98-82-8	Isopropylbenzene		110
75-15-0	Carbon disulfide	<	5.0	108-86-1	Bromobenzene	<	5.0
594-20-7	2,2-Dichloropropane	<	5.0	79-34-5	1,1,2,2-Tetrachloroethane	<	5.0
156-59-2	Cis-1,2-dichloroethene	<	5.0	96-18-4	1,2,3-Trichloropropane	<	5.0
75-27-4	Bromochloromethane	<	5.0	103-65-1	N-propylbenzene	<	5.0
67-66-3	Chloroform	<	5.0	95-49-8	2-Chlorotoluene	<	5.0
71-55-6	1,1,1-Trichloroethane	<	5.0	106-43-4	4-Chlorotoluene	<	5.0
56-23-5	Carbon tetrachloride	<	5.0	108-67-8	1,3,5-Trimethylbenzene		320
78-3-93	2-Butanone	<	5.0	98-06-6	Tert-butylbenzene	<	5.0
563-58-6	1,1-Dichloropropene	<	5.0	120-82-1	1,2,4-Trimethylbenzene		470
108-05-4	Vinyl Acetate	<	5.0	135-98-8	Sec-butylbenzene	<	5.0
110-75-8	2-Chloroethylvinyl ether	<	5.0	541-73-1	1,3-Dichlorobenzene	<	5.0
71-43-2	**Benzene**		21	99-87-6	4-Isopropyltoluene		43
107-06-2	1,2-Dichloroethane	<	5.0	106-46-7	1,4-Dichlorobenzene	<	5.0
79-01-6	Trichloroethene	<	5.0	95-50-1	1,2-Dichlorobenzene	<	5.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	20	104-51-8	n-Butylbenzene	<	5.0
78-87-5	1,2-Dichloropropane	<	5.0	96-12-8	1,2-Dibromo-3-chloropropan	<	5.0
74-95-3	Dibromomethane	<	5.0	120-82-1	1,2,4-Trichlorobenzene	<	5.0
75-27-4	Bromodichloromethane	<	5.0	87-68-3	Hexachlorobutadiene	<	5.0
10061-01-5	Cis-1,3-dichloropropene	<	5.0	91-20-3	Naphthalene		68
				87-61-6	1,2,3-Trichlorobenzene	<	5.0

	Concentration Detected	Units	Method	PQL	Date Analyzed
TPH - GRO	18	mg/L	EPA 8015M	0.5	09/12/11
TPH - DRO	5.1	mg/L	EPA 8015M	0.5	09/13/11

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-1**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Project No:	05-056	Date Analyzed:	09/10/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**		37
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**		2.5
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**		4.3
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**		4.8
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform	<	1.0	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene		2.8
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene		9.9
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene		18
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-2**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Project No:	05-056	Date Analyzed:	09/10/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**	<	1.0
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**	<	1.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**	<	1.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**	<	1.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform	<	1.0	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene	<	1.0
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene	<	1.0
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene		2.3
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Anabell

Environmental, Inc.

8648 Dakota Drive, Gaithersburg, MD 20877 Tel/Fax: (301) 548-9425

Laboratory Analysis Results

Client:	Advantage Environmental	Matrix:	Water
Client ID:	**PW-3**	Date Sampled:	09/08/11
Site:	**RF-1 Mountain Rd Joppa, MD**	Date Received:	09/09/11
Project No:	05-056	Date Analyzed:	09/10/11

EPA Method 524.2 Units: ug/L (ppb)

CAS Number	Compound	Concentration Detected		CAS Number	Compound	Concentration Detected	
75-71-8	Dichlorodifluoromethane	<	1.0	108-88-3	**Toluene**		9.8
74-87-3	Chloromethane	<	1.0	10061-02-(	Trans-1,3-dichloropropene	<	1.0
75-01-4	Vinyl chloride	<	1.0	79-00-5	1,1,2-Trichloroethane	<	1.0
74-83-9	Bromomethane	<	1.0	108-10-1	4-Methyl-2-pentanone	<	1.0
75-00-3	Chloroethane	<	1.0	591-78-6	2-Hexanone	<	1.0
75-69-4	Trichlorofluoromethane	<	1.0	127-18-4	Tetrachloroethene	<	1.0
75-35-4	1,1-Dichloroethene	<	1.0	142-28-9	1,3-Dichloropropane	<	1.0
75-65-0	**Tert-butanol; TBA**	<	10	124-48-1	Dibromochloromethane	<	1.0
1634-04-4	**Methyl-Tert-butyl ether MTBE**	<	1.0	106-93-4	1,2-Dibromoethane	<	1.0
75-09-2	Methylene chloride	<	1.0	108-90-7	Chlorobenzene	<	1.0
156-60-5	Trans-1,2-dichloroethene	<	1.0	630-20-6	1,1,1,2-Tetrachloroethane	<	1.0
108-20-3	**Isopropyl ether DIPE**	<	4.0	100-41-4	**Ethylbenzene**		4.0
637-92-3	**Ethyl-tert-butyl ether ETBE**	<	4.0	108-38-3	**m,p-xylene**		10.0
994-05-8	**Tert-amyl metyl ether TAME**	<	4.0	95-47-6	**o-xylene**		9.0
75-85-4	**Tert-amyl alcohol TAA**	<	40	100-42-5	Styrene	<	1.0
75-34-3	1,1-Dichloroethane	<	1.0	75-25-2	Bromoform	<	1.0
67-64-1	Acetone	<	1.0	98-82-8	Isopropylbenzene	<	1.0
75-15-0	Carbon disulfide	<	1.0	108-86-1	Bromobenzene	<	1.0
594-20-7	2,2-Dichloropropane	<	1.0	79-34-5	1,1,2,2-Tetrachloroethane	<	1.0
156-59-2	Cis-1,2-dichloroethene	<	1.0	96-18-4	1,2,3-Trichloropropane	<	1.0
75-27-4	Bromochloromethane	<	1.0	103-65-1	N-propylbenzene	<	1.0
67-66-3	Chloroform		2.3	95-49-8	2-Chlorotoluene	<	1.0
71-55-6	1,1,1-Trichloroethane	<	1.0	106-43-4	4-Chlorotoluene	<	1.0
56-23-5	Carbon tetrachloride	<	1.0	108-67-8	1,3,5-Trimethylbenzene		5.2
78-3-93	2-Butanone	<	1.0	98-06-6	Tert-butylbenzene	<	1.0
563-58-6	1,1-Dichloropropene	<	1.0	120-82-1	1,2,4-Trimethylbenzene		17
108-05-4	Vinyl Acetate	<	1.0	135-98-8	Sec-butylbenzene	<	1.0
110-75-8	2-Chloroethylvinyl ether	<	1.0	541-73-1	1,3-Dichlorobenzene	<	1.0
71-43-2	**Benzene**	<	1.0	99-87-6	4-Isopropyltoluene	<	1.0
107-06-2	1,2-Dichloroethane	<	1.0	106-46-7	1,4-Dichlorobenzene	<	1.0
79-01-6	Trichloroethene	<	1.0	95-50-1	1,2-Dichlorobenzene	<	1.0
75-65-0	**Tert-amyl ethyl ether TAEE**	<	4.0	104-51-8	n-Butylbenzene	<	1.0
78-87-5	1,2-Dichloropropane	<	1.0	96-12-8	1,2-Dibromo-3-chloropropan	<	1.0
74-95-3	Dibromomethane	<	1.0	120-82-1	1,2,4-Trichlorobenzene	<	1.0
75-27-4	Bromodichloromethane	<	1.0	87-68-3	Hexachlorobutadiene	<	1.0
10061-01-5	Cis-1,3-dichloropropene	<	1.0	91-20-3	Naphthalene		23
				87-61-6	1,2,3-Trichlorobenzene	<	1.0

*** **Oxygenates & BTEX in bold**

9/13/2011

Approved Date

Advantage Environmental Consultants, LLC
8610 Baltimore-Washington Blvd., Suite 217 Jessup, Maryland 20794 Phone/Fax (301) 776-0600/(301) 776-1123

Environmental Sample Chain-of-Custody Record

CLIENT: Royal Farms
Job Number: 05-056
Sampler (s): J. Rutan
TURN-AROUND TIME: STD
Site: RF-1

Sample ID	Date	Time	Comp	Grab	Matrix	Preserv. pH	# Bottles	VOC 5035 8260	VOC 5035 8260	TPH DRO 8015	TPH GRO 8015			Comments
MW-1	9/8/11	5:08		X	H_2O	HCl	3	X		X	X			
MW-2		4:55		X			3	X		X	X			
MW-3		4:48		X			3	X		X	X			
MW-4		4:43		X			3	X		X	X			
MW-5		5:02		X			3	X		X	X			
TP-1		5:17		X			3	X		X	X			
TP-2		5:12		X			3	X		X	X			
PW-1		5:32		X			2		X					
PW-2		5:39		X			2		X					
PW-3		5:37		X			2		X					

Section to be completed by Laboratory
Initial:
Temp:
Custody seal: Y N
Sample Storage:

VOA ONLY: Air Bubbles (Y or N)	pH	TPH: Chlorine Check N2S2O3

Relinquished By: Date/Time 9/9/11 10:03
Relinquished By: Date/Time
Received By: Date/Time
Received By Laboratory: Date/Time 09/09/11
Report Results To: JStein; TRuggin; JRutan@AEC-ENV.com Fax: