Quarterly Groundwater Monitoring Report
First Quarter 2015

Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road
Churchville, MD 21028

MDE Case No. 93-0197-HA
MDE Facility ID No. 3851

AEC Project Number: 05-056RF072

Prepared for:
Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
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And

Royal Farms / Two Farms, Inc.
3611 Roland Avenue
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Prepared by:
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May 5, 2015

Washington DC | Nashville TN | Richmond VA | Philadelphia PA | San Diego CA | Denver CO

Regulatory Information

Regulatory Agency:	Maryland Department of the Environment
Agency Contact:	Jeannette DeBartolomeo
Case Number:	OCP Case No. 93-0197-HA
Current Case Status:	Monthly on-site potable well sampling. Quarterly groundwater sampling. Quarterly off-site potable well sampling.
Reporting Period:	1-1-15 through 3-31-15

General Site Information

Royal Farms Contact:	Tom Ruszin
Consultant Contact:	Jeff Stein/James Wolf
Facility Status:	Operating fuel station
Area Property Use:	See Site Vicinity Map and Site Map (Figures 1 and 2 in Attachment A)
Monitoring Wells:	MW-1, MW-2, MW-6, MW-7, MW-8
Monitoring Pipes:	TP-1 and TP-2
Potable Wells:	On-site: 2906 Churchville Road (HA-81-4103) Off-site: 2907 Churchville Road

Activities Completed this Period

Sampling Date:	January 14, 2015 (Onsite Potable Well)/ January 29, 2015 (Onsite Potable Well) February 9, 2015 (Potable Wells/Monitoring Wells)/March 9, 2015 (Onsite Potable Well)
Wells Sampled:	On-site and off-site potable wells, MW-1, MW-2, MW-6, MW-7, MW-8, TP-1, and TP-2
LPH Present:	No
Minimum/Maximum Groundwater Elevation:	90.44 feet / 87.24 feet
Groundwater Flow Direction:	South

The Site vicinity is depicted in Figure 1. The Site plan, including well locations, is depicted in Figure 2.

The monitoring well and tank pit observation well samples were collected on February 9, 2015. The on-site drinking water samples are collected monthly, but due to a carbon re-bedding in the onsite water treatment system, samples were collected twice in January. The samples were collected on January 14, 2015, January 29, 2015, February 9, 2015, and March 9, 2015. The quarterly off-site (2907 Churchville Road) drinking water sample was collected on February 9, 2015.

All samples were analyzed according to United States Environmental Protection Agency (EPA) protocols. Groundwater samples were collected from the

monitoring wells and tank pit observation wells by first gauging and then purging at least three well volumes using a poly vinyl chloride (PVC) bailer which was cleaned (Liquinox and potable water rinse) prior to use in each well. After purging, each well was allowed to recharge for a period of at least one hour prior to sampling. The monitoring well and tank pit observation well samples were collected using dedicated, pre-cleaned, disposable sampling bailers.

The groundwater flow direction for the monitoring wells on the day of the sampling event is depicted in Figure 3 (Attachment A). Table 1 in Attachment B provides current and historical groundwater elevation data.

Samples from the on-site potable well were collected from the treatment system's influent (PW-1), mid-points (PW-2a, PW-2b, PW-2c) and effluent (PW-3). The potable well system is sampled monthly to monitor methyl tert-butyl ether (MTBE) and other volatile organic compound (VOC) breakthrough in the granular activated carbon (GAC) system.

As required in Maryland Department of the Environment (MDE) correspondence dated September 26, 2013, a GAC system was installed on October 9, 2013 to treat the off-site potable well located at 2907 Churchville Road. Samples from the off-site potable well were collected from the treatment system's influent, mid-points (Mid-1, Mid-2) and effluent. The potable well system is sampled quarterly to monitor methyl tert-butyl ether (MTBE) and other volatile organic compound (VOC) breakthrough in the granular activated carbon (GAC) system. All potable well samples were obtained after purging the system for 15 minutes.

The monitoring wells and tank pit observation wells were analyzed for VOCs, including fuel oxygenates per EPA Analytical Method 8260, and Total Petroleum Hydrocarbons (TPH) Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) per EPA Analytical Method 8015B. The potable drinking water well system samples were analyzed for VOCs, including fuel oxygenates per EPA Analytical Method 524.2.

AEC also monitored subsurface conditions to determine the progress of natural attenuation within the subsurface. Groundwater samples were field tested for conductivity, oxidation reduction potential, and dissolved oxygen using a Horiba U-52 meter as well as ferrous iron (Fe^{2+}) with a Hach™ test kit. In addition to field testing, laboratory samples were analyzed for nitrate and sulfate per EPA Analytical Method 300.0, and methane per EPA Analytical Method 8015.

Results

Monitoring and Tank Pit Observation Wells

Laboratory analytical results for MW-1 indicate all VOCs, TPH DRO and TPH GRO concentrations were below laboratory detections limits (BDL).

Laboratory analytical results for MW-2 indicate Benzene, MTBE, Naphthalene, TPH GRO and TPH DRO concentrations detected above regulatory standards (i.e., Generic Numeric Cleanup Standards for Groundwater and Soil – Interim Final Guidance Update No. 2.1 – June, 2008). Laboratory analytical results for this sample also show detectable levels of Tert-Amyl alcohol (TAA), tert-Amyl methyl ether (TAME), tert-Butanol (TBA), sec-Butylbenzene, n-Butylbenzene, Ethylbenzene, Isopropylbenzene (Cumene), 4-Isopropyltoluene, n-Propylbenzene, Toluene, 1,2,4 – Trimethylbenzenze, 1,3,5 –Trimethylbenzene, O-Xylene and m- & p- Xylenes. All other analytes were BDL.

Laboratory analytical results for MW-6 indicate all VOCs, TPH DRO and TPH GRO concentrations were BDL.

Laboratory analytical results for MW-7 indicate a TPH DRO concentration above the regulatory standard. Laboratory analytical results for this sample also show detectable levels of TBA, and MTBE below regulatory standards. All other analytes were BDL.

Laboratory analytical results for MW-8 indicate all VOCs, TPH DRO and TPH GRO concentrations were BDL.

Laboratory analytical results for TP-1 indicate all VOCs, TPH DRO and TPH GRO concentrations were BDL.

Laboratory analytical results for TP-2 indicate MTBE and TPH DRO concentrations above the regulatory standard. Laboratory analytical results for this sample also showed detectable levels of TAME, TBA, and 1,2,4-trimethylbenzene. All other analytes were BDL.

On-Site Potable Well Treatment System

The January 14, 2015 treatment system laboratory analysis results for the influent (PW-1) sample indicated an elevated concentration of MTBE with respect to regulatory standards. The sample also had a detectable concentration of TAME, TBA, and diisopropyl ether (DIPE). The laboratory analytical results for Mid-point 1 (PW-2a) indicated a detectable concentration of MTBE, TAME and TBA. The laboratory analytical results for Mid-point 2 (PW-2b), Mid-point 3 (PW-2c), and effluent (PW-3) indicated a detectable concentration of TBA.

The carbon in the tanks was re-bedded on January 15, 2015. After the carbon was rebedded, AEC resampled the onsite potable well on January 29, 2015. The

treatment system laboratory analysis results for PW-1 indicated an elevated concentration of MTBE with respect to regulatory standards. The sample also had detectable concentrations of TAME and DIPE. The laboratory analytical results for PW-2a and PW-2b indicated detectable levels of MTBE. The laboratory analytical results for PW-2c and PW-3 indicated concentrations for all analyzed VOCs were BDL. The invoice for the carbon re-bedding is included in Attachment D.

The February 9, 2015 treatment system laboratory analysis results for PW-1 indicated an elevated concentration of MTBE with respect to the regulatory standard. The sample also had a detectable concentration of TAME and DIPE. The laboratory analytical results for PW-2a and PW-2b indicated detectable concentrations of MTBE and TBA. Laboratory analytical results for PW-2c and PW-3 indicated concentrations for all analyzed VOCs were BDL.

The March 9, 2015 treatment system laboratory analysis results for PW-1 indicated an elevated concentration of MTBE with respect to the regulatory standard. The sample also had detectable concentrations of TAA, TAME, benzene, TBA, 1,2-dichloroethane, and DIPE. The laboratory analytical results for PW-2a indicated an elevated concentration of MTBE with respect to the regulatory standard. PW-2a also had detectable concentrations of TAME and TBA. The laboratory analytical results for PW-2b indicated detectable concentrations of TBA and MTBE. The laboratory analytical results for PW-2c and PW-3 indicated concentrations for all analyzed VOCs were BDL.

Table 3 in Attachment B summarizes the on-site potable well testing results. Laboratory analytical results are presented in Attachment C.

Off-Site Potable Well Treatment System

The February 9, 2015 treatment system laboratory analysis results for PW-1 indicated an elevated concentration of MTBE with respect to regulatory standards. The laboratory analytical results for PW-2a indicated a detectable concentration of MTBE. The laboratory analytical results for PW-2b and PW-3 indicated concentrations for all analyzed VOCs were BDL.

Table 4 in Attachment B summarizes the off-site potable well testing results. Laboratory analytical results are presented in Attachment C.

Natural Attenuation Monitoring

Results from the natural attenuation monitoring indicate that anaerobic natural attenuation is occurring at the Site. Lab results from MW-2 (the well with the highest concentration of petroleum constituents) show low concentrations of sulfate and nitrate and a high concentration of methane. This indicates that the dominant terminal electron accepting process in MW-2 is methanogenesis. Wells farther away from MW-2 generally exhibited higher concentrations of sulfate and nitrate indicating sulfate reduction and denitrification are occurring as

electron accepting processes. The presence of Fe^{2+} at MW-2, and MW-6 indicates that iron reduction is also occurring within the plume. Figure 5 in Attachment A summarizes the latest natural attenuation monitoring data. Table 3 in Attachment B summarizes the field testing results.

Attachment A

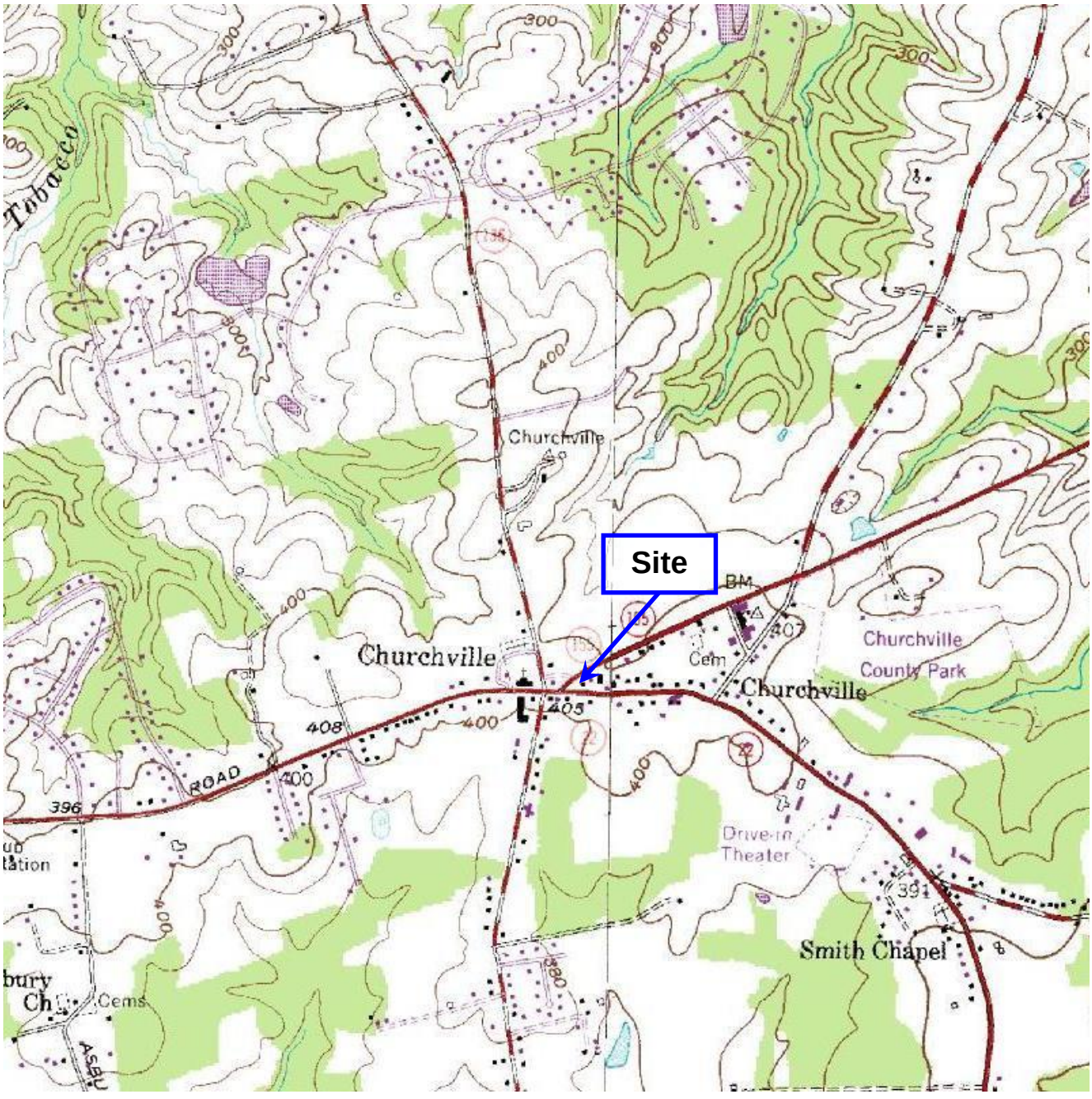

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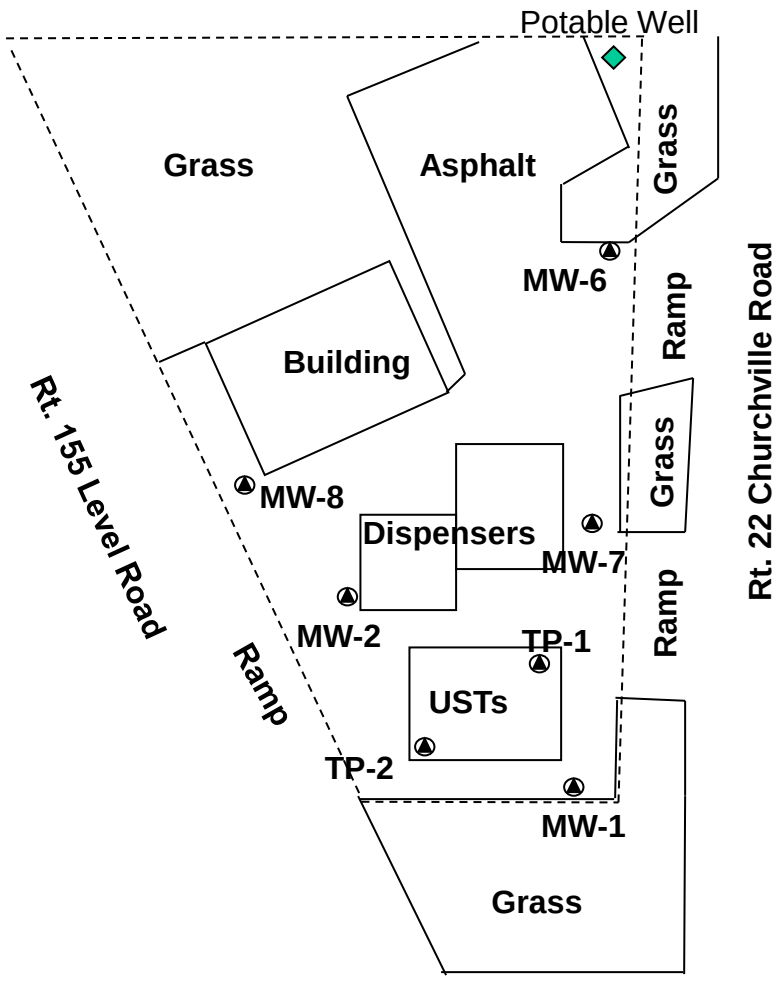
Figure 1 - Site Vicinity Map
Royal Farms Store #72
2906 Churchville Road
Churchville, Maryland 21028

Project No.:	Date:	Drawn By:
05-056RF072	April 2015	NAE



Site Boundary

Monitoring/Tank Pit Well Location

0 40
Approximate Scale (ft)

North

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Figure 2 - Site Map
Royal Farms Store #72
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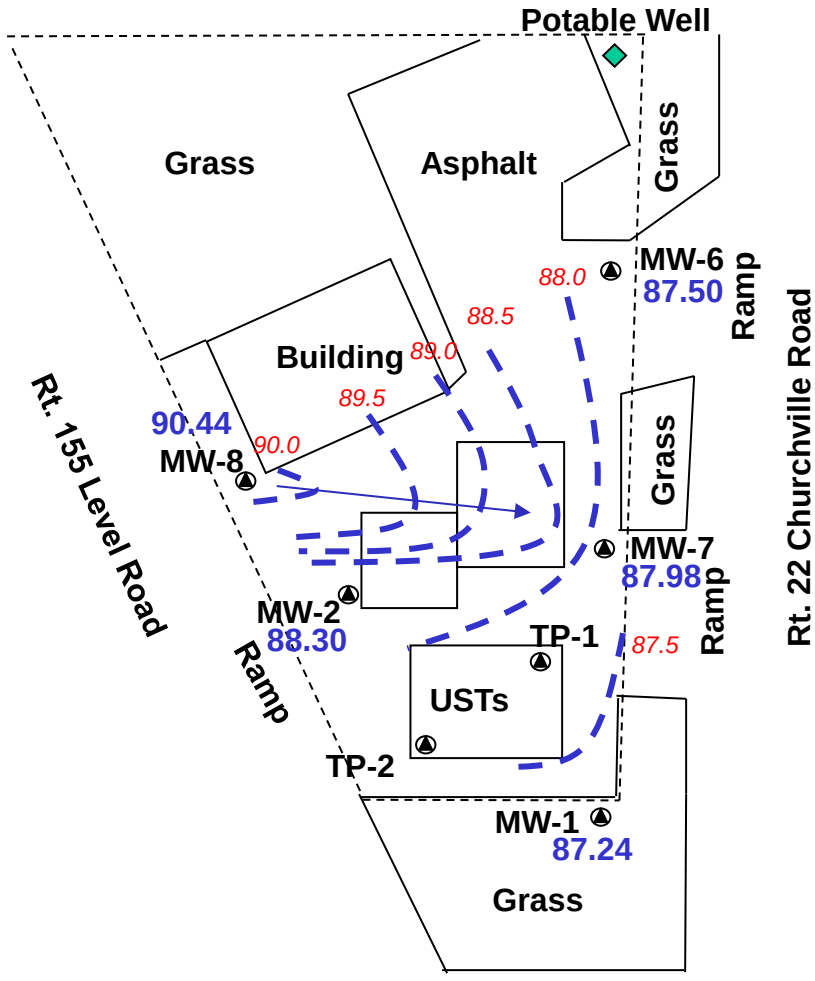
Churchville, Maryland 21028

Project No.:	Date:	Drawn By:
05-056RF-072	April 2015	NAE



North

Monitoring/Tank Pit Well Location

Contour Interval

Estimated Groundwater flow direction

All measurements in feet (data collected 2/9/2015)

0 40

Approximate Scale (ft)

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Figure 3 – Groundwater Gradient Map
Royal Farms Store #72
2906 Churchville Road
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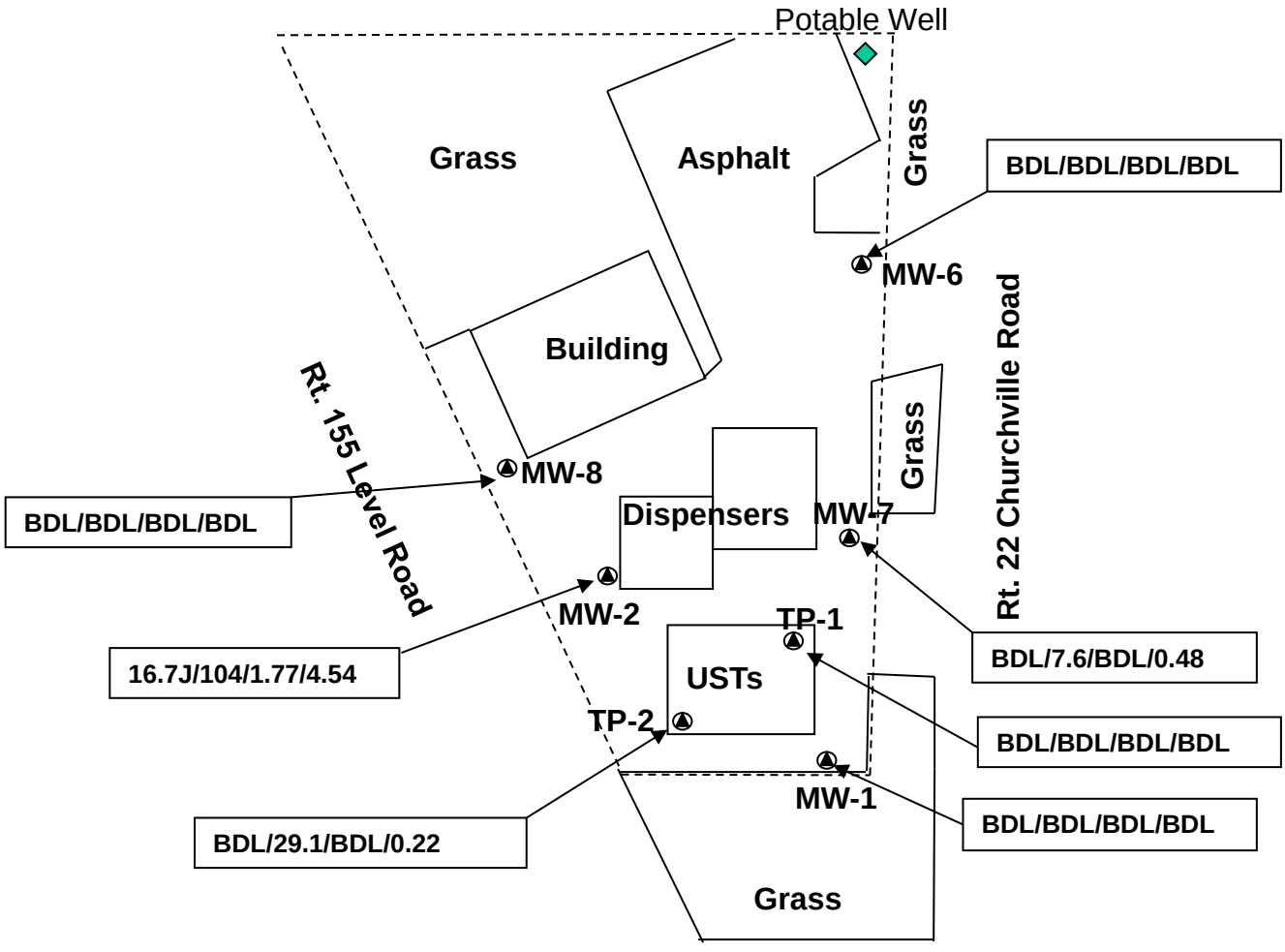
Work Order No.:	Report Date:	Drawn By:
05-056RF072	April 2015	NAE



Monitoring/Tank Pit Well Location

Groundwater Samples Collected 2/9/2015
Samples analyzed for VOCs per EPA 8260 plus oxygenates
TPH GRO/DRO per EPA 8015
Benzene/MTBE/GRO/DRO
VOCs in ug/l or ppb & TPH in mg/l or ppm
BDL = Below Detection Limits
NS = Not Sampled
J denotes an estimated value

North

0 40
Approximate Scale (ft)

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Figure 4 – Groundwater Quality Map
Royal Farms Store #72
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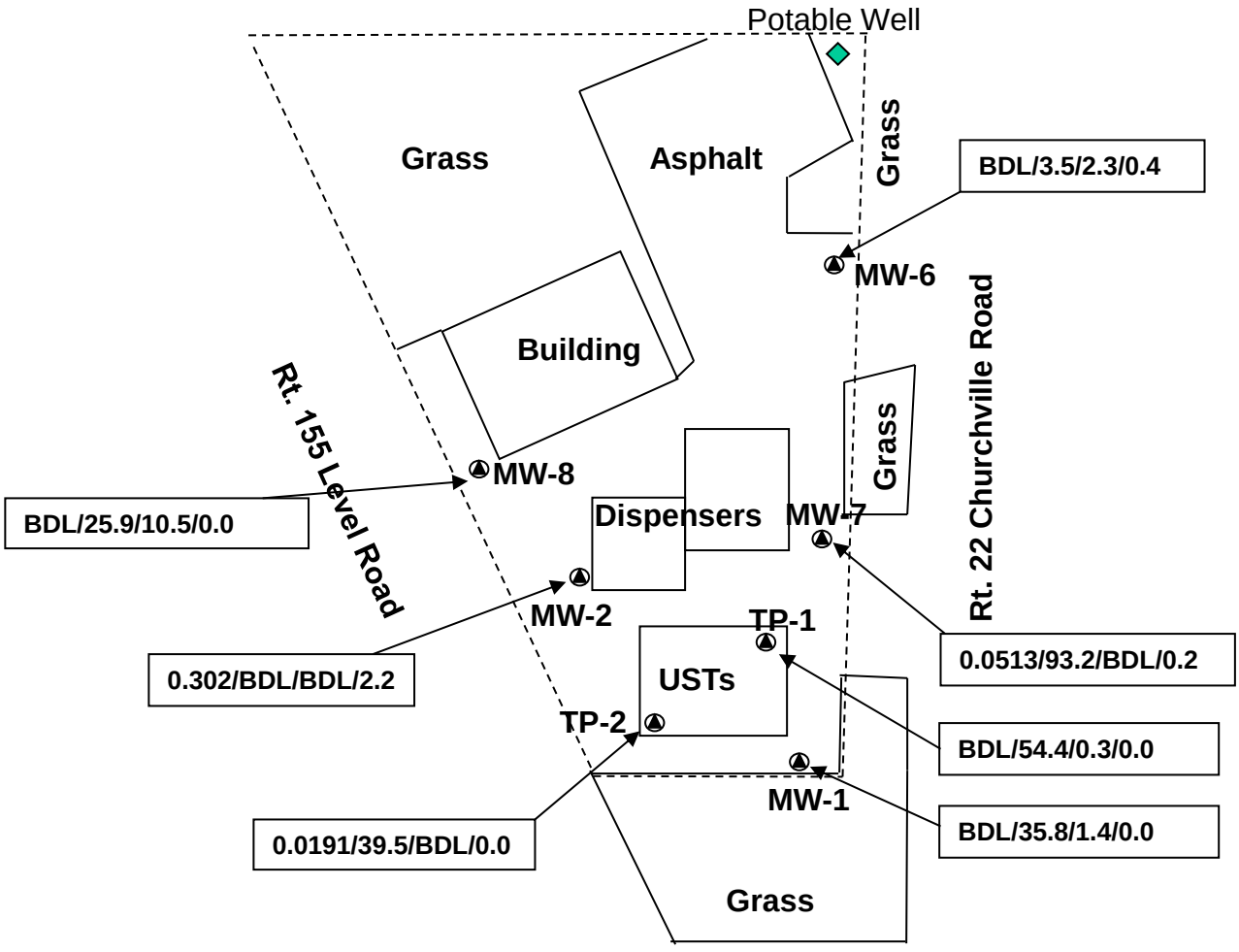
Churchville, Maryland 21028

Work Order No.:	Report Date:	Drawn By:
05-056RF72	April 2015	NAE



Monitoring/Tank Pit Well Location

Groundwater Samples Collected 2/9/2015
Samples analyzed for:
Methane per EPA Analytical Method 8015
Sulfate per EPA Analytical Method 300.0
Nitrate per EPA Analytical Method 300.0
Ferrous Iron via a Hach™ field test kit
Methane/Sulfate/Nitrate/Ferrous Iron
Results in mg/l or ppm
BDL = Below Detection Limits

North

0 40
Approximate Scale (ft)

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Figure 5 – Natural Attenuation Monitoring Map
Royal Farms Store #72
2906 Churchville Road
Churchville, Maryland 21028

Work Order No.:	Report Date:	Drawn By:
05-056RF72	April 2015	NAE

Attachment B

Table 1 - Historical Groundwater Elevation Data
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
MW-1	7/9/2005	12.59	97.75	85.16	
	2/3/2006	8.32	97.75	89.43	
	7/11/2006	9.66	97.75	88.09	
	1/31/2007	11.27	97.75	86.48	
	4/17/2007	8.25	97.75	89.50	
	7/30/2007	15.87	97.75	81.88	
	11/2/2007	16.62	97.75	81.13	
	1/29/2008	12.99	97.75	84.76	
	3/27/2008	10.73	97.75	87.02	
	6/25/2008	12.25	97.75	85.50	
	9/29/2008	15.10	97.75	82.65	
	12/30/2008	11.93	97.75	85.82	
	3/30/2009	13.21	97.75	84.54	
	6/24/2009	11.84	97.75	85.91	
	6/30/2009	12.40	97.75	85.35	
	9/30/2009*	6.82	97.75	90.93	
	11/3/2009	8.36	97.75	89.39	
	12/29/2009	11.30	97.75	86.45	
	3/25/2010	8.57	97.75	89.18	
	6/18/2010	7.09	97.75	90.66	
	8/31/2010	16.53	97.75	81.22	
	12/15/2010	11.88	97.75	85.87	
	3/1/2011	10.07	97.75	87.68	
	5/20/2011	10.98	97.75	86.77	
	8/31/2011	9.72	97.75	88.03	
	11/29/2011	10.09	97.75	87.66	
	2/28/2012	11.99	97.75	85.76	
	5/8/2012	13.42	97.75	84.33	
	8/2/2012	16.20	97.75	81.55	
	11/6/2012	13.46	97.75	84.29	
	3/1/2013	10.20	97.75	87.55	
	5/23/2013	12.45	97.75	85.30	
	8/20/2013	9.91	97.75	87.84	
	11/14/2013	14.63	97.75	83.12	Slight odor
	2/18/2014	8.90	97.75	88.85	
	5/15/2014	9.22	97.75	88.53	
	8/5/2014	12.40	97.75	85.35	
	11/10/2014	13.23	97.75	84.52	
	2/9/2015	10.51	97.75	87.24	
MW-2	7/9/2005	10.62	95.56	84.94	
	2/3/2006	7.55	95.56	88.01	
	7/11/2006	7.36	95.56	88.20	
	1/31/2007	9.21	95.56	86.35	
	4/17/2007	5.79	95.56	89.77	
	7/30/2007	13.77	95.56	81.79	
	11/2/2007	14.43	95.56	81.13	
	1/29/2008	9.83	95.56	85.73	
	3/27/2008	8.46	95.56	87.10	
	6/25/2008	9.80	95.56	85.76	
	9/29/2008	13.09	95.56	82.47	
	12/30/2008	9.86	95.56	85.70	
	3/30/2009	11.25	95.56	84.31	
	6/24/2009	9.64	95.56	85.92	
	6/30/2009	10.09	95.56	85.47	
	9/30/2009*	7.60	95.63	88.03	
	11/3/2009	6.28	95.63	89.35	
	12/29/2009	9.85	95.63	85.78	
	3/25/2010	6.27	96.63	90.36	
	6/18/2010	5.69	96.63	90.94	
	8/31/2010	14.25	96.63	82.38	
	12/16/2010	9.86	96.63	86.77	
	3/1/2011	8.23	96.63	88.40	
	5/20/2011	8.62	96.63	88.01	
	8/31/2011	9.75	96.63	86.88	

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2906 Churchville Road, Churchville, MD 21028

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	11/29/2011	7.36	96.63	89.27	
	2/28/2012	9.79	96.63	86.84	
	5/8/2012	11.28	96.63	85.35	Slight odor
	8/2/2012	14.00	96.63	82.63	
	11/6/2012	11.40	96.63	85.23	
	3/1/2013	8.50	96.63	88.13	Slight odor
	5/23/2013	10.21	96.63	86.42	
	8/20/2013	7.60	96.63	89.03	
	11/14/2013	12.34	96.63	84.29	
	2/18/2014	7.15	96.63	89.48	
	5/15/2014	6.75	96.63	89.88	Slight odor
	8/5/2014	10.11	96.63	86.52	
	11/10/2014	10.78	96.63	85.85	
	2/9/2015	8.33	96.63	88.30	
MW-3	7/9/2005	8.69	95.44	68.75	
	2/3/2006	5.74	95.44	89.70	
	7/11/2006	6.36	95.44	89.08	
	1/31/2007	7.47	95.44	87.97	
	4/17/2007	2.96	95.44	92.48	
	7/30/2007	12.49	95.44	82.95	
	11/2/2007	13.32	95.44	82.12	
	1/29/2008	10.86	95.44	84.58	
	3/27/2008	7.44	95.44	88.00	
	6/25/2008	8.84	95.44	86.60	
	9/29/2008	11.82	95.44	83.62	
	12/30/2008	8.80	95.44	86.64	
	3/30/2009	10.07	95.44	85.37	
	6/24/2009	8.52	95.44	86.92	
	6/30/2009	9.06	95.44	86.38	
	9/30/2009*	6.52	94.46	87.94	
	11/3/2009	5.31	94.46	89.15	
	12/29/2009	7.45	94.46	87.01	
	3/25/2010	5.19	95.46	90.27	
	6/18/2010	4.71	95.46	90.75	
	8/31/2010	13.21	95.46	82.25	
	12/15/2010	8.76	95.46	86.70	
	3/1/2011	6.91	95.46	88.55	
	5/20/2011	7.49	95.46	87.97	
	8/31/2011	Abandoned	Abandoned	Abandoned	
MW-4	7/11/2006	6.13	94.48	88.35	
	1/31/2007	5.97	94.48	88.51	
	4/17/2007	4.17	94.48	90.31	
	7/30/2007	12.30	94.48	82.18	
	11/2/2007	12.63	94.48	81.85	
	1/29/2008	8.94	94.48	85.54	
	3/27/2008	6.70	94.48	87.78	
	6/25/2008	8.67	94.48	85.81	
	9/29/2008	11.60	94.48	82.88	
	12/30/2008	8.77	94.48	85.71	
	3/30/2009	10.19	94.48	84.29	
	6/24/2009	8.67	94.48	85.81	
	6/30/2009	9.13	94.48	85.35	
	9/30/2009*	7.94	95.32	87.38	
	11/3/2009	5.22	95.32	90.10	
	12/29/2009	8.92	95.32	86.40	
	3/25/2010	6.10	96.32	90.22	
	6/18/2010	5.05	96.32	91.27	
	8/31/2010	13.76	96.32	82.56	
	12/15/2010	25.31	96.32	71.01	
	3/1/2011	7.65	96.32	88.67	
	5/20/2011	7.58	96.32	88.74	
	8/31/2011	Abandoned	Abandoned	Abandoned	
MW-5	7/11/2006	10.64	96.02	85.38	
	1/31/2007	9.27	96.02	86.75	

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Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	4/17/2007	5.72	96.02	90.30	
	7/30/2007	17.07	96.02	78.95	
	11/2/2007	14.66	96.02	81.36	
	1/29/2008	11.45	96.02	84.57	
	3/27/2008	9.18	96.02	86.84	
	6/25/2008	9.81	96.02	86.21	
	9/29/2008	13.50	96.02	82.52	
	12/30/2008	10.37	96.02	85.65	
	3/30/2009	11.89	96.02	84.13	
	6/24/2009	10.34	96.02	85.68	
	6/30/2009	10.78	96.02	85.24	
	9/30/2009*	7.98	96.38	88.40	
	11/3/2009	6.64	96.38	89.74	
	12/29/2009	9.18	96.38	87.20	
	3/25/2010	6.53	97.38	90.85	
	6/18/2010	5.11	97.38	92.27	
	8/31/2010	14.58	97.38	82.80	
	12/15/2010	9.68	97.38	87.70	
	3/1/2011	8.24	97.38	89.14	
	5/20/2011	9.20	97.38	88.18	
	8/31/2011	Abandoned	Abandoned	Abandoned	
MW-6	6/24/2009	9.27	95.19	85.92	
	6/30/2009	9.79	95.19	85.40	
	9/30/2009*	6.48	95.30	88.82	
	11/3/2009	6.33	95.30	88.97	
	12/29/2009	NG	95.30	NG	
	3/25/2010	5.41	95.30	89.89	
	6/18/2010	4.37	95.30	90.93	
	8/31/2010	12.81	95.30	82.49	
	12/15/2010	9.33	95.30	85.97	
	3/1/2011	6.80	95.30	88.50	
	5/20/2011	8.11	95.30	87.19	
	8/31/2011	8.28	95.30	87.02	
	11/29/2011	6.93	95.30	88.37	
	2/28/2012	9.40	95.30	85.90	
	5/8/2012	10.87	95.30	84.43	
	8/2/2012	13.51	95.30	81.79	
	11/6/2012	10.43	95.30	84.87	
	3/1/2013	7.96	95.30	87.34	
	5/23/2013	9.75	95.30	85.55	Slight odor
	8/20/2013	7.19	95.30	88.11	
	11/14/2013	12.02	95.30	83.28	
	2/18/2014	6.77	95.30	88.53	
	5/15/2014	6.27	95.30	89.03	
	8/5/2014	9.51	95.30	85.79	
	11/10/2014	10.83	95.30	84.47	
	2/9/2015	7.80	95.30	87.50	
MW-7	6/24/2009	8.61	94.28	85.67	
	6/30/2009	8.97	94.28	85.31	
	9/30/2009*	8.41	94.32	85.91	
	11/3/2009	5.81	94.32	88.51	
	12/29/2009	NG	94.32	NG	
	3/25/2010	5.28	95.32	90.04	
	6/18/2010	4.43	95.32	90.89	
	8/31/2010	13.12	95.32	82.20	
	12/15/2010	8.69	95.32	86.63	
	3/1/2011	6.53	95.32	88.79	
	5/20/2011	7.61	95.32	87.71	
	8/31/2011	8.59	95.32	86.73	
	11/29/2011	6.72	95.32	88.60	
	2/28/2012	8.01	95.32	87.31	
	5/8/2012	9.61	95.32	85.71	
	8/2/2012	12.62	95.32	82.70	
	11/6/2012	10.57	95.32	84.75	

Table 1 - Historical Groundwater Elevation Data
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	3/1/2013	7.47	95.32	87.85	
	5/23/2013	8.92	95.32	86.40	
	8/20/2013	6.24	95.32	89.08	
	11/14/2013	10.82	95.32	84.50	
	2/18/2014	6.27	95.32	89.05	
	5/15/2014	5.79	95.32	89.53	
	8/5/2014	8.30	95.32	87.02	
	11/10/2014	9.12	95.32	86.20	
	2/9/2015	7.34	95.32	87.98	
MW-8	6/24/2009	9.83	95.77	85.94	
	6/30/2009	10.31	95.77	85.46	
	9/30/2009*	7.10	95.86	88.76	
	11/3/2009	6.12	95.86	89.74	
	12/29/2009	NG	95.86	NG	
	3/25/2010	6.95	96.86	89.91	
	6/18/2010	5.63	96.86	91.23	
	8/31/2010	14.32	96.86	82.54	
	12/15/2010	9.72	96.86	87.14	
	3/1/2011	8.72	96.86	88.14	
	5/20/2011	8.75	96.86	88.11	
	8/31/2011	9.31	96.86	87.55	
	11/29/2011	7.49	96.86	89.37	
	2/28/2012	9.98	96.86	86.88	
	5/8/2012	11.52	96.86	85.34	
	8/2/2012	14.11	96.86	82.75	
	11/6/2012	11.10	96.86	85.76	
	3/1/2013	8.57	96.86	88.29	
	5/23/2013	10.37	96.86	86.49	
	8/20/2013	7.66	96.86	89.20	
	11/14/2013	12.49	96.86	84.37	
	2/18/2014	7.11	96.86	89.75	
	5/15/2014	6.94	96.86	89.92	
	8/5/2014	9.47	96.86	87.39	
	11/10/2014	10.57	96.86	86.29	
	2/9/2015	8.42	98.86	90.44	
TP-1	7/9/2005	NG	NS	NS	
	2/3/2006	NG	NS	NS	
	7/11/2006	NG	NS	NS	
	1/31/2007	NG	NS	NS	
	4/27/2007	6.29	NS	NS	
	7/30/2007	12.68	NS	NS	
	11/2/2007	14.02	NS	NS	
	1/29/2008	10.28	NS	NS	
	3/27/2008	7.62	NS	NS	
	6/25/2008	8.54	NS	NS	
	9/29/2008	12.70	NS	NS	
	12/30/2008	9.24	NS	NS	
	3/30/2009	9.72	NS	NS	
	6/24/2009	NG	NS	NS	
	6/30/2009	9.00	NS	NS	
	9/30/2009	6.73	NS	NS	
	11/3/2009	6.13	NS	NS	
	12/29/2009	10.19	NS	NS	
	3/25/2010	4.91	NS	NS	
	6/18/2010	3.88	NS	NS	
	8/31/2010	13.26	NS	NS	
	12/15/2010	9.48	NS	NS	
	3/1/2011	7.56	NS	NS	
	5/20/2011	7.55	NS	NS	
	8/31/2011	10.21	NS	NS	
	11/29/2011	6.61	NS	NS	
	2/28/2012	8.64	NS	NS	
	5/8/2012	10.42	NS	NS	
	8/2/2012	NG	NS	NS	

Table 1 - Historical Groundwater Elevation Data
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	Depth to Water	TOC Elevation	Water Elevation	Comments
	11/6/2012	11.51	NS	NS	
	3/1/2013	8.07	NS	NS	stagnant
	5/23/2013	9.47	NS	NS	
	8/20/2013	6.94	NS	NS	
	11/14/2013	11.46	NS	NS	
	2/18/2014	6.21	NS	NS	
	5/15/2014	5.51	NS	NS	
	8/5/2014	9.23	NS	NS	
	11/10/2014	8.65	NS	NS	
	2/9/2015	7.40	NS	NS	
TP-2	7/9/2005	NG	NS	NS	
	2/3/2006	NG	NS	NS	
	7/11/2006	NG	NS	NS	
	1/31/2007	NG	NS	NS	
	4/27/2007	6.70	NS	NS	
	7/30/2007	13.02	NS	NS	
	11/2/2007	14.51	NS	NS	
	1/29/2008	10.35	NS	NS	
	3/27/2008	8.16	NS	NS	
	6/25/2008	9.07	NS	NS	
	9/29/2008	13.05	NS	NS	
	12/30/2008	9.76	NS	NS	
	3/30/2009	11.10	NS	NS	
	6/24/2009	NG	NS	NS	
	6/30/2009	9.40	NS	NS	
	9/30/2009	6.72	NS	NS	
	11/3/2009	5.72	NS	NS	
	12/29/2009	9.68	NS	NS	
	3/25/2010	4.94	NS	NS	
	6/18/2010	3.93	NS	NS	
	8/31/2010	13.68	NS	NS	
	12/15/2010	9.92	NS	NS	
	3/1/2011	8.13	NS	NS	
	5/20/2011	7.96	NS	NS	
	8/31/2011	10.69	NS	NS	
	11/29/2011	7.03	NS	NS	
	2/28/2012	9.23	NS	NS	
	5/8/2012	10.99	NS	NS	
	8/2/2012	NG	NS	NS	
	11/6/2012	11.87	NS	NS	
	3/1/2013	8.47	NS	NS	stagnant
	5/23/2013	9.76	NS	NS	
	8/20/2013	7.31	NS	NS	
	11/14/2013	11.88	NS	NS	
	2/18/2014	6.62	NS	NS	
	5/15/2014	5.88	NS	NS	
	8/5/2014	9.58	NS	NS	
	11/10/2014	8.35	NS	NS	
	2/9/2015	7.80	NS	NS	

All measurements in feet
TOC = Top of Casing
NS = Not Surveyed
NG = Not Gauged
* Top of casing elevation resurveyed on November 3, 2009

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

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
	2/3/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/11/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/31/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	4/17/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	11	BDL	5.3	16.3	370	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	7	BDL	8.1	15.1	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	6.2	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/8/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/5/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-2	7/9/2005	160	13	87	160	420	2600	NS	NS
	2/3/2006	320	27	270	520	1137	860	NS	NS
	7/11/2006	134	17	172	328	651	930	NS	NS
	1/31/2007	190	12	140	210	552	800	NS	NS
	4/17/2007	132	11	87	173	403	870	5.1	0.7
	7/30/2007	700	63	450	810	2023	3200	8.2	BDL
	11/2/2007	155	14	120	280	569	900	7.4	3.3
	1/29/2008	54	BDL	60	134	248	10000	3.6	35.6
	3/27/2008	73	9.9	29	136	247.9	160	2.5	1.4
	6/25/2008	160	34	140	290	624	1100	5.2	0.9
	9/29/2008	160	12	120	220	512	2300	3.9	4.3
	12/30/2008	92	11	74	163	340	1000	6	12
	3/30/2009	84	BDL	60	84	228	1400	2	3.4
	6/30/2009	140	12	90	164	406	720	1.2	2
	9/30/2009	150	50	200	510	910	1200	4.7	5.4
	12/29/2009	70	11	130	260	471	510	2	4.1

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	3/25/2010	57	90	5.6	161	313.6	800	3.3	2.6
	6/18/2010	130	15	130	234	509	1000	3.3	12
	8/31/2010	2580	17	170	295	3062	980	1.4	18
	12/15/2010	54	BDL	56	75	185	BDL	1.5	0.5
	3/1/2011	69	16	100	241	426	BDL	3.5	3.8
	5/20/2011	82	12	130	215	439	BDL	3.1	2.9
	8/31/2011	59.1	BDL	88.8	193.9	341.8	481	10.6	4.79
	11/29/2011	21.5	BDL	81.1	124.6	227.2	168	1.3	2.88
	2/28/2012	56	8.0 J	76.6	168.3	308.9	341	3.41	4.07
	5/8/2012	86.6	BDL	101	158	345.6	479	3.69	2.84
	8/2/2012	85.7	BDL	105	164.9	355.6	558	3.65	4.84
	11/6/2012	BDL	34.1J	45.2	87.3	132.5	370	2.640	3.09
	3/1/2013	17	BDL	36	53	106	320	3.6	BDL
	5/23/2013	49.7	9.4	94.4	148.8	302.3	324	1.99	3.94
	8/20/2013	32.5	7.9	79.9	180	300.3	261	1.75	4.04
	11/14/2013	45.6	6.4 J	107	143.4	296.4 J	344	4.93	3.78
	2/18/2014	32.9	9.4 J	111	263	416.3 J	224	2.16	5.84
	5/15/2014	27.1	8.7	97.1	223	355.9	187	2.54	5.48
	8/5/2014	29.7	4.2 J	43.4	33.1	106.2	172	3.33	4.91
	11/10/2014	27.6	4.1 J	88.9	163.8	284.4 J	201	1.53	4.51
	2/9/2015	16.7	6.5 J	79	170.3	272.5	104	1.770	4.54
MW-3	7/9/2005	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	2/3/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/11/2006	BDL	BDL	BDL	BDL	BDL	2.0 J	NS	NS
	1/31/2007	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	4/17/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2007	56	320	70	273	719	70	1.1	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	2000	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	Abandoned							
MW-4	3/30/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/11/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/31/2007	BDL	BDL	BDL	BDL	BDL	17	NS	NS
	4/17/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	19	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	9/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	13	BDL	15.8	28.8	20	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	Abandoned							
MW-5	3/30/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	7/11/2006	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
	1/31/2007	BDL	BDL	BDL	BDL	BDL	43	NS	NS
	4/17/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	190	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	190	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	Abandoned							
MW-6	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.23
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.29
	5/8/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.3
	8/2/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.22
	8/5/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-7	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	80	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	9.2	BDL	2.0 J	6.0 J	17.2 J	BDL	BDL	0.43
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.3
	2/28/2012	BDL	BDL	BDL	BDL	BDL	4.8 J	BDL	0.55
	5/8/2012	BDL	BDL	BDL	BDL	BDL	4.6 J	BDL	0.28
	8/2/2012	BDL	BDL	BDL	BDL	BDL	3.9 J	BDL	0.61
	11/6/2012	BDL	BDL	BDL	BDL	BDL	5.8	BDL	0.49
	3/1/2013	BDL	BDL	BDL	BDL	BDL	14	BDL	BDL
	5/23/2013	BDL	BDL	BDL	BDL	BDL	10.2	BDL	0.47
	8/20/2013	BDL	BDL	BDL	BDL	BDL	16.2	BDL	0.46
	11/14/2013	BDL	BDL	BDL	BDL	BDL	14.1	BDL	0.40
	2/18/2014	BDL	BDL	BDL	BDL	BDL	11.3	BDL	0.68
	5/15/2014	BDL	BDL	BDL	BDL	BDL	14.0	BDL	0.69
	8/5/2014	BDL	BDL	BDL	BDL	BDL	16.9	BDL	0.36
	11/10/2014	BDL	BDL	BDL	BDL	BDL	28.5	BDL	0.55
	2/9/2015	BDL	BDL	BDL	BDL	BDL	7.6	BDL	0.48
MW-8	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	17.7	17.7	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	17.7	17.7	BDL	BDL	BDL
	8/31/2010	BDL	5	BDL	BDL	5	BDL	BDL	BDL
	12/15/2010	BDL	5	BDL	BDL	5	BDL	BDL	BDL
	3/1/2011	BDL	5	BDL	BDL	5	36	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.22
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.23
	5/8/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.22
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.20
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.20
	8/5/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP-1	3/30/2006	NS	NS	NS	NS	NS	NS	NS	NS
	7/11/2006	NS	NS	NS	NS	NS	NS	NS	NS
	1/31/2007	NS	NS	NS	NS	NS	NS	NS	NS
	4/27/2007	8.9	BDL	BDL	BDL	8.9	1400	BDL	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	1200	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	270	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	740	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	77	BDL	BDL
	6/25/2008	4	BDL	BDL	BDL	4	450	BDL	BDL
	9/29/2008	BDL	BDL	BDL	BDL	BDL	110	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	61	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	62	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	46	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	9	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	10	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/18/2010	BDL	BDL	BDL	BDL	BDL	6.5	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	9.6	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	16	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	2.3j	BDL	BDL
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/8/2012	12.5	13.5	BDL	2.7 J	28.7	4.6 J	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	7.4	16.4	BDL	8.3J	32.1J	10.9	BDL	BDL
	3/1/2013	BDL	54	BDL	8.6	62.6	BDL	BDL	BDL
	5/23/2013	18.9	151	BDL	39.5	209.4	9.0	0.46	0.29
	8/20/2013	4.9	17.1	BDL	3.5	25.5	4.5	BDL	0.35
	11/14/2013	3.5 J	6.1	BDL	2.5 J	12.1 J	4.3 J	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.25
	5/15/2014	BDL	BDL	BDL	BDL	BDL	3.0	BDL	0.27
	8/5/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	4.7 J	BDL	BDL	BDL	4.7 J	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP-2	3/30/2006	NS	NS	NS	NS	NS	NS	NS	NS
	7/11/2006	NS	NS	NS	NS	NS	NS	NS	NS
	1/31/2007	NS	NS	NS	NS	NS	NS	NS	NS
	4/27/2007	13	8.5	BDL	BDL	21.5	720	BDL	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	46	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	74	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	660	BDL	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	200	BDL	BDL
	6/25/2008	6.5	5.3	BDL	8.6	20.4	400	BDL	BDL
	9/29/2008	6.5	6.2	BDL	8.6	21.3	230	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	160	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	85	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	32	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	41	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	9.8	BDL	BDL

Table 2 - Historical Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
	6/18/2010	BDL	BDL	BDL	BDL	BDL	10	BDL	BDL
	8/31/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/15/2010	BDL	BDL	BDL	BDL	BDL	70	BDL	BDL
	3/1/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	50	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	3.9j	BDL	0.22
	11/29/2011	4.1 J	48	3.2 J	41.8	97.1	8.2	0.183	0.27
	2/28/2012	32.3	666	139	944	1781.3	13.0 J	2.66	0.61
	5/8/2012	96.4	799	118	826	1839.4	12.8 J	1.79	0.34
	8/2/2012	BDL	BDL	BDL	BDL	BDL	3.0 J	BDL	0.31
	11/6/2012	26.9	104	3.4J	24.3	158.6J	10.5	0.198	0.27
	3/1/2013	78	270	7.7	56	411.7	16	BDL	BDL
	5/23/2013	148	583	BDL	101.4	832.4	16	1.28	0.37
	8/20/2013	51	221	4.1	41.2	317.3	18	0.264	0.39
	11/14/2013	BDL	10.4 J	BDL	BDL	10.4 J	10.4 J	0.125	0.32
	2/18/2014	8.1	17.5	BDL	4.9 J	30.5 J	20.1	0.102	0.61
	5/15/2014	2.7	3.5	BDL	BDL	6.2	3.4	BDL	0.40
	8/5/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.27
	11/10/2014	BDL	BDL	BDL	BDL	BDL	5.1	BDL	0.22
	2/9/2015	BDL	BDL	BDL	BDL	BDL	29.1	BDL	0.22
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

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 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
Supply	3/30/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL
(PW-1)	7/11/2006	BDL	BDL	BDL	BDL	194	52	BDL
	1/31/2007	BDL	BDL	BDL	BDL	BDL	33	BDL
	4/17/2007	BDL	BDL	BDL	BDL	BDL	18	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	32	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	250	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	220	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	140	BDL
	9/29/2008	BDL	2.3	BDL	BDL	BDL	160	2.5
	12/30/2008	BDL	BDL	BDL	BDL	BDL	95	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	400	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	170	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	110	BDL
	12/29/2009	BDL	BDL	BDL	BDL	21	170	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	470	BDL
	*6/18/2010	BDL	BDL	BDL	BDL	BDL	270	BDL
	*8/31/2010	BDL	BDL	BDL	BDL	BDL	260	1.2
	*12/15/2010	BDL	BDL	BDL	BDL	BDL	200	BDL
	*1/25/2011	BDL	BDL	BDL	BDL	BDL	216	BDL
	2/28/2011	BDL	BDL	BDL	BDL	BDL	240	BDL
	3/31/2011	BDL	BDL	BDL	BDL	BDL	230	BDL
	*4/26/2011	BDL	BDL	BDL	BDL	BDL	340	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	310	BDL
	6/29/2011	BDL	BDL	BDL	BDL	BDL	360	BDL
	7/25/2011	BDL	BDL	BDL	BDL	BDL	1300	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	270	BDL
	*9/30/2011	BDL	BDL	BDL	BDL	BDL	340	BDL
	10/31/2011	1.2	BDL	BDL	BDL	BDL	530	2.3
	11/29/2011	BDL	BDL	BDL	BDL	200	263	BDL
	12/20/2011	BDL	BDL	BDL	BDL	BDL	280	BDL
	*1/18/2012	BDL	BDL	BDL	BDL	BDL	550	2.0
	2/28/2012	BDL	BDL	BDL	BDL	424	314	BDL
	3/14/2012	BDL	BDL	BDL	BDL	BDL	710	BDL
	4/19/2012	BDL	BDL	BDL	BDL	BDL	660	2.0
	5/8/2012	BDL	BDL	BDL	BDL	313	366	BDL
	*6/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/6/2012	BDL	BDL	BDL	BDL	449	640	BDL
	8/2/2012	BDL	BDL	BDL	BDL	290	321	BDL
	9/24/2012	BDL	BDL	BDL	BDL	335	530	BDL
	10/25/2012	BDL	BDL	BDL	BDL	317	685	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	415	BDL
	12/26/2012	BDL	BDL	BDL	BDL	630	443	BDL
	1/31/2013	BDL	BDL	BDL	BDL	BDL	746	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	400	BDL
	3/29/2013	BDL	BDL	BDL	BDL	442	487	BDL
	4/23/2013	BDL	BDL	BDL	BDL	297	552	BDl
	5/23/2013	BDL	BDL	BDL	BDL	BDL	574	BDL
	6/25/2013	BDL	BDL	BDL	BDL	804	399	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
	7/17/2013	BDL	BDL	BDL	BDL	BDL	418	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	414	BDL
	9/23/2013	BDL	BDL	BDL	BDL	257	538	BDL
	10/9/2013	BDL	BDL	BDL	BDL	656	639	BDL
	11/14/2013	BDL	BDL	BDL	BDL	786	715	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	695	BDL
	1/9/2014	BDL	BDL	BDL	BDL	330	613	BDL
	2/18/2014	BDL	BDL	BDL	BDL	805	598	BDL
	3/18/2014	BDL	BDL	BDL	BDL	279	623	BDL
	4/30/2014	BDL	BDL	BDL	BDL	1,040	568	BDL
	5/15/2014	BDL	BDL	BDL	BDL	508	559	BDL
	6/25/2014	BDL	BDL	BDL	BDL	365	644	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	455	BDL
	8/26/2014	BDL	BDL	BDL	BDL	253	637	BDL
	9/24/2014	BDL	BDL	BDL	BDL	407	695	BDL
	10/9/2014	BDL	BDL	BDL	BDL	305	706	BDL
	11/10/2014	BDL	BDL	BDL	BDL	267	568	BDL
	12/8/2014	BDL	BDL	BDL	BDL	248	832	BDL
	1/14/2015	BDL	BDL	BDL	BDL	262	512	BDL
	*1/29/2015	BDL	BDL	BDL	BDL	BDL	489	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	543	BDL
	3/9/2015	2.43	BDL	BDL	BDL	247	791	BDL
Supply	3/30/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL
(PW-2a)	7/11/2006	BDL	BDL	BDL	BDL	189	BDL	BDL
	1/31/2007	BDL	BDL	BDL	BDL	BDL	11	BDL
	4/17/2007	BDL	BDL	BDL	BDL	BDL	7.5	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	170	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	31	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	71	1.5
	3/27/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/29/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	2.3	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	23	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	120	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	410	BDL
	*6/18/2010	BDL	BDL	BDL	BDL	BDL	311	BDL
	*8/31/2010	BDL	2.2	BDL	1.1	BDL	240	BDL
	*12/15/2010	BDL	BDL	BDL	BDL	BDL	73	BDL
	*1/25/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/31/2011	BDL	BDL	BDL	BDL	BDL	5.7	BDL
	*4/26/2011	BDL	3.2	BDL	1	BDL	5.4	1.5
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/25/2011	BDL	BDL	2.7	10.5	BDL	16	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	1.31	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
	*9/30/2011	BDL	BDL	BDL	BDL	BDL	5.5	BDL
	10/31/2011	BDL	BDL	BDL	BDL	BDL	31	BDL
	11/29/2011	BDL	BDL	BDL	BDL	258	7.66	BDL
	12/20/2011	BDL	BDL	BDL	BDL	BDL	48	BDL
	*1/18/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	243	1.02	BDL
	3/14/2012	BDL	BDL	BDL	BDL	BDL	9.4	BDL
	4/19/2012	BDL	BDL	BDL	BDL	BDL	34	BDL
	5/8/2012	BDL	BDL	BDL	BDL	292	7.87	BDL
	*6/14/2012	BDL	BDL	BDL	BDL	BDL	23	BDL
	7/6/2012	BDL	BDL	BDL	BDL	430	4.4	BDL
	8/2/2012	BDL	BDL	BDL	BDL	345	7.05	BDL
	9/24/2012	BDL	BDL	BDL	BDL	389	45.6	BDL
	10/25/2012	BDL	BDL	BDL	BDL	BDL	20.2	BDL
	11/6/2012	BDL	BDL	BDL	BDL	33.9	9.64	BDL
	12/26/2012	BDL	BDL	BDL	BDL	275	5.37	BDL
	1/31/2013	BDL	BDL	BDL	BDL	509	9.41	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/29/2013	BDL	BDL	BDL	BDL	300	12.9	BDL
	4/23/2013	BDL	BDL	BDL	BDL	BDL	2.85	BDL
	5/23/2013	BDL	BDL	BDL	BDL	31.8	2.83	BDL
	6/25/2013	BDL	BDL	BDL	BDL	167	1.85	BDL
	7/17/2013	BDL	BDL	BDL	BDL	276	2.61	BDL
	8/20/2013	BDL	BDL	BDL	BDL	258	3.00	BDL
	9/23/2013	BDL	BDL	BDL	BDL	288	2.88	BDL
	10/9/2013	BDL	BDL	BDL	BDL	214 E	3.37	BDL
	11/14/2013	BDL	BDL	BDL	BDL	328 E	15.0	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	2.44	BDL
	1/9/2014	BDL	BDL	BDL	BDL	36.3	6.08	BDL
	2/18/2014	BDL	BDL	BDL	BDL	309 E	5.30	BDL
	3/18/2014	BDL	BDL	BDL	BDL	370 E	1.88	BDL
	4/30/2014	BDL	BDL	BDL	BDL	257 E	0.87	BDL
	5/15/2014	BDL	BDL	BDL	BDL	293 E	9.82	BDL
	6/25/2014	BDL	BDL	BDL	BDL	354E	10.60	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	2.16	BDL
	8/26/2014	BDL	BDL	BDL	BDL	107.0	2.90	BDL
	9/24/2014	BDL	BDL	BDL	BDL	254.0	5.18	BDL
	10/9/2014	BDL	BDL	BDL	BDL	314 E	5.81	BDL
	11/10/2014	BDL	BDL	BDL	BDL	109.0	2.95	BDL
	12/8/2014	BDL	BDL	BDL	BDL	269 E	7.23	BDL
	1/14/2015	BDL	BDL	BDL	BDL	186	14.2	BDL
	*1/29/2015	BDL	BDL	BDL	BDL	BDL	2.82	BDL
	2/9/2015	BDL	BDL	BDL	BDL	42.5	2.66	BDL
	3/9/2015	BDL	BDL	BDL	BDL	397.0	22.10	BDL
Supply	3/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
(PW-2b)	*4/26/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/25/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*9/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/31/2011	BDL	6.1	1.6	4.4	BDL	BDL	1.3
	11/29/2011	BDL	BDL	BDL	BDL	134	BDL	BDL
	12/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*1/18/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	113	BDL	BDL
	3/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/19/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/8/2012	BDL	BDL	BDL	BDL	289	BDL	BDL
	*6/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/6/2012	BDL	BDL	BDL	BDL	78.9	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	291	BDL	BDL
	9/24/2012	BDL	BDL	BDL	BDL	398	BDL	BDL
	10/25/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/26/2012	BDL	BDL	BDL	BDL	52.0	BDL	BDL
	1/31/2013	BDL	BDL	BDL	BDL	354	BDL	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/29/2013	BDL	BDL	BDL	BDL	320	BDL	BDL
	4/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/17/2013	BDL	BDL	BDL	BDL	64.7	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	157	BDL	BDL
	9/23/2013	BDL	BDL	BDL	BDL	201	BDL	BDL
	10/9/2013	BDL	BDL	BDL	BDL	142	BDL	BDL
	11/14/2013	BDL	BDL	BDL	BDL	373 E	BDL	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	27.7	BDL	BDL
	3/18/2014	BDL	BDL	BDL	BDL	247 E	BDL	BDL
	4/30/2013	BDL	BDL	BDL	BDL	24.8	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	111	BDL	BDL
	6/25/2014	BDL	BDL	BDL	BDL	346	BDL	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/24/2014	BDL	BDL	BDL	BDL	140	BDL	BDL
	10/9/2014	BDL	BDL	BDL	BDL	190	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	12.4	BDL	BDL
	12/8/2014	BDL	BDL	BDL	BDL	165	BDL	BDL
	1/14/2015	BDL	BDL	BDL	BDL	143	BDL	BDL
	*1/29/2015	BDL	BDL	BDL	BDL	BDL	3.83	BDL
	2/9/2015	BDL	BDL	BDL	BDL	36.3	2.83	BDL
	3/9/2015	BDL	BDL	BDL	BDL	365	9.27	BDL
Supply	3/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
(PW-2c)	*4/26/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
	6/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/25/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*9/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/29/2011	BDL	BDL	BDL	BDL	124	1.43	BDL
	12/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*1/18/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/19/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/8/2012	BDL	BDL	BDL	BDL	217	BDL	BDL
	*6/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	133	BDL	BDL
	9/24/2012	BDL	BDL	BDL	BDL	441	BDL	BDL
	10/25/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/26/2012	BDL	BDL	BDL	BDL	13.5	BDL	BDL
	1/31/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/29/2013	BDL	BDL	BDL	BDL	202	BDL	BDL
	**4/23/2013	BDL	NS	NS	NS	NS	NS	NS
	**5/23/2013	BDL	NS	NS	NS	NS	NS	NS
	**6/25/2013	BDL	NS	NS	NS	NS	NS	NS
	7/17/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/9/2013	BDL	BDL	BDL	BDL	31.5	BDL	BDL
	11/14/2013	BDL	BDL	BDL	BDL	238 E	BDL	BDL
	12/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/26/2014	BDL	BDL	BDL	BDL	55.3	BDL	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2014	BDL	BDL	BDL	BDL	230	BDL	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/24/2014	BDL	BDL	BDL	BDL	16.3	BDL	BDL
	10/9/2014	BDL	BDL	BDL	BDL	73.6	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/8/2014	BDL	BDL	BDL	BDL	30.3	BDL	BDL
	1/14/2015	BDL	BDL	BDL	BDL	93.6	BDL	BDL
	*1/29/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
Supply	7/9/2005	BDL	BDL	BDL	BDL	BDL	BDL	BDL
(PW-3)	2/3/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/11/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/31/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/17/2007	BDL	BDL	BDL	BDL	BDL	8	BDL
	7/30/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/2/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/29/2008	BDL	BDL	BDL	BDL	BDL	8.6	BDL
	3/27/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/29/2008	BDL	3	BDL	1.3	BDL	BDL	BDL
	12/30/2008	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/30/2009	BDL	3	BDL	1.3	BDL	BDL	BDL
	6/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/29/2009	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/25/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*6/18/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*8/31/2010	BDL	1.5	BDL	2.5	BDL	2.6	BDL
	*12/15/2010	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*1/25/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*4/26/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/25/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*9/30/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/31/2011	BDL	2.4	BDL	1.4	BDL	BDL	1.6
	11/29/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*1/18/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/28/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/19/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/8/2012	BDL	BDL	BDL	BDL	71	BDL	BDL
	*6/14/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/2/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/24/2012	BDL	BDL	BDL	BDL	357	BDL	BDL
	10/25/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/6/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/26/2012	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/31/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/1/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/29/2013	BDL	BDL	BDL	BDL	26.9	BDL	BDL
	4/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 3 - Historical On-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
	5/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/17/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/20/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/23/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/9/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/14/2013	BDL	BDL	BDL	BDL	15.1	BDL	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2014	BDL	BDL	BDL	BDL	63.1	BDL	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/24/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/8/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/14/2015	BDL	BDL	BDL	BDL	20.8	BDL	BDL
	1/29/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Type I and II Aquifers		**5**	**1000**	**700**	**10000**	**NRS**	**20**	**0.65**

* - indicates that a carbon rebed took place between this date and the preceeding date

** - sample port scheduled to be repaired. Currently not operational

BDL = Below Detection Limits

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

TBA = Tert-butanol

MTBE = Methyl-tert-butyl-ether

All results reported in reported in parts per billion or ug/L

PW-1 = Potable Well Influent

PW-2a = First Potable Well Mid Point

PW-2b = Second Potable Well Mid Point

PW-2c = Third 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 Below Reporting Limit

E Denotes Estimated Value Above Calibration Range of Instrument

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

NRS = No Regulatory Standard

Table 4 - Historical Off-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2907 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
Influent	8/31/2010	BDL	BDL	BDL	BDL	BDL	19	BDL
	8/31/2011	BDL	BDL	BDL	BDL	BDL	5.27	BDL
	8/2/2012	BDL	BDL	BDL	BDL	BDL	12.3	BDL
	8/20/2013	BDL	BDL	BDL	BDL	15	242	BDL
	8/28/2013	BDL	BDL	BDL	BDL	BDL	268	BDL
Installed GAC treatment system October 9, 2013								
	11/14/2013	BDL	BDL	BDL	BDL	BDL	409 E	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	392	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	403	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	436	BDL
	3/18/2014	BDL	BDL	BDL	BDL	BDL	414	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	455	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	470	BDL
	6/25/2014	BDL	BDL	BDL	BDL	BDL	578	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	343	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	353	BDL
	*9/24/2014	BDL	BDL	BDL	BDL	BDL	437	BDL
	10/9/2014	BDL	BDL	BDL	BDL	BDL	344	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	217	BDL
	12/8/2014	BDL	BDL	BDL	BDL	BDL	270	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	68.1	BDL
Mid-1	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	5.35	BDL
	3/18/2014	BDL	BDL	BDL	BDL	BDL	38.6	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	136	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	212	BDL
	6/25/2014	BDL	BDL	BDL	BDL	BDL	403	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	312	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	362	BDL
	*9/24/2014	BDL	BDL	BDL	BDL	BDL	1.57	BDL
	10/9/2014	BDL	BDL	BDL	BDL	BDL	1.03	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	0.61	BDL
	12/8/2014	BDL	BDL	BDL	BDL	BDL	45.1	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	77.3	BDL
Mid-2	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	0.67	BDL
	*9/24/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/8/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 4 - Historical Off-site Potable Well Analytical Results
Gasoline Fueling Station – Royal Farms #72
2907 Churchville Road, Churchville, MD 21028

Well No.	Date	B	T	E	X	TBA	MTBE	Naphthalene
Effluent	11/14/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/19/2013	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	1/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	3/18/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	4/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	5/15/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	6/25/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	7/30/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/26/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	*9/24/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/9/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	11/10/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	12/8/2014	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/9/2015	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Type I and II Aquifers		**5**	**1000**	**700**	**10000**	**NRS**	**20**	**0.65**

* - indicates that a carbon rebed took place between this date and the preceeding date

BDL = Below Detection Limits

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

TBA = Tert-butanol

MTBE = Methyl-tert-butyl-ether

All results reported in reported in parts per billion or ug/L

Influent = Potable Well Influent

Mid-1 = First Potable Well Mid Point

Mid-2 = Second Potable Well Mid Point

Effluent = 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 Below Reporting Limit

E Denotes Estimated Value Above Calibration Range of Instrument

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

NRS = No Regulatory Standard

Table 5 - Natural Attenuation Monitoring Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road
Churchville, MD 21028

Well No.	Date	Cond	ORP	DO	Fe^{2+}	Methane	Sulfate	Nitrate
MW-1	8/31/2011	0.62	203	7.85	0.0	BDL	29.7	2.7
	11/29/2011	3.44	155	12.73	0.0	BDL	40	3.5
	2/28/2012	0.52	197	6.78	0.0	BDL	36.1	BDL
	5/8/2012	0.543	179	5.60	0.0	BDL	35.4	BDL
	8/2/2012	0.679	151	4.97	0.0	BDL	35.9	BDL
	11/6/2012	0.546	145	6.32	0.0	BDL	35.4	1.9
	3/1/2013	0.504	96	6.24	0.0	BDL	35.6	0.7
	5/23/2013	0.512	125	10.12	0.0	BDL	37.0	0.3
	8/20/2013	0.538	175	4.32	0.0	BDL	37.5	7.9
	11/14/2013	0.527	175	0.00	0.0	BDL	33.2	1.6
	2/18/2014	0.809	255	10.98	0.0	BDL	30.4	4.3
	5/15/2014	0.458	132	6.05	0.0	BDL	32.0	1.0
	8/5/2014	0.566	206	5.66	0.0	BDL	6.1	5.8
	11/10/2014	0.633	110	9.06	0.6	BDL	40.0	0.7
	2/9/2015	0.407	315	3.89	0.0	BDL	35.8	1.4
MW-2	8/31/2011	1.09	29	3.57	6.1	0.673	BDL	BDL
	11/29/2011	2.01	-59	2.93	0.0	0.442	BDL	BDL
	2/28/2012	1.25	20	2.06	3.1	0.833	BDL	0.7
	5/8/2012	1.44	-38	3.52	3.2	0.804	BDL	0.6
	8/2/2012	1.33	-42	3.41	5.2	0.878	BDL	0.8
	11/6/2012	1.15	-20	12.3	3.1	0.707	BDL	0.3
	3/1/2013	1.33	-21	2.46	3.4	0.404	BDL	0.9
	5/23/2013	1.1	12	8.18	2.5	0.858	BDL	0.9
	8/20/2013	1.01	-49	10.09	5.2	0.213	BDL	BDL
	11/14/2013	1.35	-56	0.00	3.5	0.948	BDL	BDL
	2/18/2014	1.45	-89	5.05	2.1	0.943	BDL	BDL
	5/15/2014	1.52	-43	3.54	2.2	0.129	BDL	BDL
	8/5/2014	1.50	-26	2.02	1.8	0.531	1.2	BDL
	11/10/2014	1.09	-22	7.47	2.0	0.616	BDL	BDL
	2/9/2015	1.12	164	0.68	2.2	0.302	BDL	BDL
MW-6	8/31/2011	NR	192	2.93	0.0	0.0178	2.2	0.3
	11/29/2011	3.37	114	13.04	0.0	BDL	1.0	BDL
	2/28/2012	1.4	128	1.52	2.2	0.0496	2.2	1.5
	5/8/2012	0.534	131	12.72	0.0	BDL	11.2	1.0
	8/2/2012	1.27	114	2.88	2.1	0.0541	4.9	1.6
	11/6/2012	0.848	149	4.3	2.1	0.0110	2.0	1.6
	3/1/2013	1.08	129	2.47	1.6	0.0099	3.1	0.8
	5/23/2013	1.08	133	1.66	2.3	0.0759	2.7	1.4
	8/20/2013	1.24	121	8.87	2.0	0.0135	1.4	1.8
	11/14/2013	1.22	67	0.00	4.0	0.0222	1.4	1.9
	2/18/2014	2.73	80	3.40	5.0	BDL	6.2	1.7
	5/15/2014	1.24	212	2.69	0.4	BDL	4.3	2.1
	8/5/2014	1.33	205	2.59	0.0	BDL	2.1	2.1
	11/10/2014	1.4	196	5.02	1.0	BDL	2.1	2.7
	2/9/2015	1.81	205	0.63	0.4	BDL	3.5	2.3
MW-7	8/31/2011	8.29	185	5.13	0.0	0.0125	87.3	BDL
	11/29/2011	3.33	111	13.04	0.0	BDL	89.5	0.2
	2/28/2012	7.42	177	1.96	0.0	0.0248	94.6	0.3
	5/8/2012	7.82	158	8.00	0.0	0.0183	92.9	0.4

Table 5 - Natural Attenuation Monitoring Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road
Churchville, MD 21028

Well No.	Date	Cond	ORP	DO	Fe^{2+}	Methane	Sulfate	Nitrate
	8/2/2012	7.12	117	2.63	0.0	0.0206	95.6	BDL
	11/6/2012	6.71	105	11.61	0.0	0.0092	90.2	BDL
	3/1/2013	0.002	97	3.65	0.0	0.0086	90.7	2.5
	5/23/2013	6.39	176	9.08	0.0	0.0179	94.5	1.3
	8/20/2013	6.36	234	10.01	0.0	0.0140	81.7	BDL
	11/14/2013	6.26	70	2.19	0.0	0.0253	82.2	0.3
	2/18/2014	9.13	127	12.31	0.0	0.0293	222	BDL
	5/15/2014	10.80	125	3.15	0.0	0.0108	111	BDL
	8/5/2014	11.90	153	1.83	0.0	0.0150	91.5	BDL
	11/10/2014	11.20	89	4.89	0.6	BDL	98.2	BDL
	2/9/2015	10.4	164	0.66	0.2	0.0513	93.2	BDL
MW-8	8/31/2011	0.83	186	3.94	0.0	0.0254	31.4	17.9
	11/29/2011	0.434	-54	12.46	0.0	BDL	24.5	16.8
	2/28/2012	0.64	92	1.2	0.0	0.0526	36.6	18.9
	5/8/2012	0.901	141	4.88	0.0	0.0353	34.4	17.8
	8/2/2012	0.545	171	4.75	0.0	0.0228	34	16.7
	11/6/2012	0.508	82	3.85	0.0	BDL	26.5	13.9
	3/1/2013	0.591	9	2.51	2.0	0.0069	31.7	14.8
	5/23/2013	0.514	145	5.46	0.0	0.0123	32.5	15.0
	8/20/2013	0.605	210	5.78	0.0	0.0072	27.8	12.8
	11/14/2013	0.525	47	0.00	0.0	0.0074	26.9	12.6
	2/18/2014	0.700	82	5.75	0.0	0.0099	27.1	11.5
	5/15/2014	0.877	94	2.91	0.0	BDL	30.6	13.1
	8/5/2014	0.764	137	2.30	0.0	0.0094	27.7	11.9
	11/10/2014	0.697	126	3.82	0.8	BDL	26	11.2
	2/9/2015	0.57	381	0.03	0.0	BDL	25.9	10.5
TP-1	8/31/2011	6.69	101	4.97	0.6	BDL	78.1	BDL
	11/29/2011	3.04	128	6.36	0.0	BDL	48.7	BDL
	2/28/2012	3.87	113	3.65	0.0	BDL	50.6	BDL
	5/8/2012	4.37	106	2.24	0.0	BDL	55	BDL
	8/2/2012	4.71	100	3.93	0.0	BDL	68.8	BDL
	11/6/2012	5.10	104	3.77	0.0	BDL	73.5	BDL
	3/1/2013	5.99	28	2.81	0.0	0.0103	51.0	1.3
	5/23/2013	5.56	153	0.88	0.0	0.0177	27.4	1.4
	8/20/2013	5.61	151	0.21	0.0	0.0119	17.9	0.6
	11/14/2013	5.18	-4	0.00	0.0	0.0278	27.9	1.8
	2/18/2014	6.77	103	0.60	0.0	0.0059	63.9	2.8
	5/15/2014	4.76	47	3.63	0.0	0.0136	56.3	BDL
	8/5/2014	5.10	-101	0.61	0.0	0.0184	43.0	BDL
	11/10/2014	4.76	62	5.47	1.0	BDL	49.9	BDL
	2/9/2015	4.65	303	0.21	0.0	BDL	54.4	0.3
TP-2	8/31/2011	5.98	109	5.27	0.0	BDL	68.6	BDL
	11/29/2011	4.23	102	3.78	0.0	0.0187	48	0.8
	2/28/2012	4.03	104	1.70	0.0	0.0149	44.6	BDL
	5/8/2012	4.17	95	2.7	0.0	0.0123	46.8	0.8
	8/2/2012	4.62	102	1.97	0.0	BDL	46.3	0.2
	11/6/2012	5.13	-117	11.28	0.0	0.0209	51.6	BDL
	3/1/2013	5.47	-36	2.98	0.0	0.0281	17.1	1.2
	5/23/2013	5.75	114	0.78	0.0	0.204	BDL	1.2

Table 5 - Natural Attenuation Monitoring Results
Gasoline Fueling Station – Royal Farms #72
2906 Churchville Road
Churchville, MD 21028

Well No.	Date	Cond	ORP	DO	Fe^{2+}	Methane	Sulfate	Nitrate
	8/20/2013	5.44	166	0.10	0.0	0.356	1.7	0.5
	11/14/2013	5.38	26	0.00	0.0	0.427	20.6	1.7
	2/18/2014	6.63	133	0.43	0.0	0.566	41.7	1.3
	5/15/2014	4.38	10	3.40	0.0	0.0160	30.7	BDL
	8/5/2014	4.64	25	1.16	0.0	0.0501	28.6	BDL
	11/10/2014	5.27	60	4.15	0.8	0.0363	44.8	BDL
	2/9/2015	4.8	188	1.68	0.0	0.0191	39.5	BDL

Methane, Sulfate, Nitrate and Ferrous Iron (Fe^{2+}) results in parts per million or milligrams per liter (mg/L)

Cond = Conductivity measured in Siemens per centimeter (S/cm)

ORP = Oxidation Reduction Potential measured in millivolts (mV)

DO = Dissolved Oxygen measured in milligrams per Liter (mg/L)

BDL = Below Detection Limits

NR = No Reading

Attachment C

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 03/18/15 17:40

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		PW-1	PW-2A	PW-2B	PW-2C	PW-3
LAB SAMPLE ID:		5031019-01	5031019-02	5031019-03	5031019-04	5031019-05
SAMPLE DATE:		03/09/15	03/09/15	03/09/15	03/09/15	03/09/15
RECEIVED DATE:		03/10/15	03/10/15	03/10/15	03/10/15	03/10/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)						
tert-Amyl alcohol (TAA)	ug/L	**108**	<10.0	<10.0	<10.0	<10.0
tert-Amyl methyl ether (TAME)	ug/L	**34.7**	**0.81**	<0.50	<0.50	<0.50
Benzene	ug/L	**2.43**	<0.50	<0.50	<0.50	<0.50
Bromobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butanol (TBA)	ug/L	**247**	**397 [1]**	**365 [1]**	<10.0	<10.0
n-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Chloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
2-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
4-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromoethane (EDB)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	ug/L	**11.4**	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
2,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50

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

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 03/18/15 17:40

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		PW-1	PW-2A	PW-2B	PW-2C	PW-3
LAB SAMPLE ID:		5031019-01	5031019-02	5031019-03	5031019-04	5031019-05
SAMPLE DATE:		03/09/15	03/09/15	03/09/15	03/09/15	03/09/15
RECEIVED DATE:		03/10/15	03/10/15	03/10/15	03/10/15	03/10/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)						
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Diisopropyl ether (DIPE)	ug/L	**14.8**	<0.50	<0.50	<0.50	<0.50
Ethyl tert-butyl ether (ETBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
4-Isopropyltoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl tert-butyl ether (MTBE)	ug/L	**791 [2]**	**22.1**	**9.27**	<0.50	<0.50
Methylene chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane (Freon 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
m- & p-Xylenes	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50
4-Bromofluorobenzene	[surr]	86.0%	87.0%	85.0%	81.0%	87.0%
1,2-Dichlorobenzene-d4	[surr]	87.0%	89.0%	90.0%	85.0%	89.0%

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

CHAIN-OF-CUSTODY RECORD

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

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

Company Name: AEC

Project Manager:

Project Name: RF-72

Project ID:

Sampler(s):

P.O. Number:

Analysis Requested: VOCs SGAZ

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
~~PW-3~~ PW-1	3/9/15	10:50	X			2	1+1 HCL		5031019-01
PW-2a		10:55							-02
PW-2b		11:00							-03
PW-2C		11:05							-04
~~PW-1~~ PW-3		11:10							-05

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
M. Lane	16:45 3/9/15			3/10/15 18:15	
(Printed)		(Printed)	(Printed)		(Printed) William Brewington

Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)
(Printed)		(Printed)

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

Lab Use:
Temp: 4.8 °C
- ☑ Received on Ice
- ☑ Received same day
- ☑ Preservation Appropriate

Delivery Method:
- ☐ Courier
- ☑ Client
- ☐ UPS
- ☐ FedEx
- ☐ USPS
- ☐ Other: ____

Special Instructions/QC Requirements & Comments:
Changed IDs 3/12/15 based on results. WB
Confirmed w/ Max

Sample Disposal:
- ☐ Return to Client
- ☐ Disposal by lab
- ☐ Archive for ____ days

MSS-F001-03/13

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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

Project: **2907 CHURCHVILLE RD**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 02/12/15 17:09

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		PW2907-IN	PW2907-MID1	PW2907-MID2	PW2907-EFF
LAB SAMPLE ID:		5020911-01	5020911-02	5020911-03	5020911-04
SAMPLE DATE:		02/09/15	02/09/15	02/09/15	02/09/15
RECEIVED DATE:		02/09/15	02/09/15	02/09/15	02/09/15
MATRIX	Units	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)					
tert-Amyl alcohol (TAA)	ug/L	<50.0	<50.0	<10.0	<10.0
tert-Amyl methyl ether (TAME)	ug/L	<2.50	<2.50	<0.50	<0.50
Benzene	ug/L	<2.50	<2.50	<0.50	<0.50
Bromobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Bromochloromethane	ug/L	<2.50	<2.50	<0.50	<0.50
Bromodichloromethane	ug/L	<2.50	<2.50	<0.50	<0.50
Bromoform	ug/L	<2.50	<2.50	<0.50	<0.50
Bromomethane	ug/L	<2.50	<2.50	<0.50	<0.50
tert-Butanol (TBA)	ug/L	<50.0	<50.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
sec-Butylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
tert-Butylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Carbon tetrachloride	ug/L	<2.50	<2.50	<0.50	<0.50
Chlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Chloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
Chloroform	ug/L	<2.50	<2.50	<0.50	<0.50
Chloromethane	ug/L	<2.50	<2.50	<0.50	<0.50
2-Chlorotoluene	ug/L	<2.50	<2.50	<0.50	<0.50
4-Chlorotoluene	ug/L	<2.50	<2.50	<0.50	<0.50
Dibromochloromethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	ug/L	<2.50	<2.50	<0.50	<0.50
1,2-Dibromoethane (EDB)	ug/L	<2.50	<2.50	<0.50	<0.50
Dibromomethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,2-Dichlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
1,3-Dichlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
1,4-Dichlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Dichlorodifluoromethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,1-Dichloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,2-Dichloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,1-Dichloroethene	ug/L	<2.50	<2.50	<0.50	<0.50
cis-1,2-Dichloroethene	ug/L	<2.50	<2.50	<0.50	<0.50
trans-1,2-Dichloroethene	ug/L	<2.50	<2.50	<0.50	<0.50
1,2-Dichloropropane	ug/L	<2.50	<2.50	<0.50	<0.50
1,3-Dichloropropane	ug/L	<2.50	<2.50	<0.50	<0.50
2,2-Dichloropropane	ug/L	<2.50	<2.50	<0.50	<0.50
1,1-Dichloropropene	ug/L	<2.50	<2.50	<0.50	<0.50

Analytical Results

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

Project: **2907 CHURCHVILLE RD**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 02/12/15 17:09

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		PW2907-IN	PW2907-MID1	PW2907-MID2	PW2907-EFF
LAB SAMPLE ID:		5020911-01	5020911-02	5020911-03	5020911-04
SAMPLE DATE:		02/09/15	02/09/15	02/09/15	02/09/15
RECEIVED DATE:		02/09/15	02/09/15	02/09/15	02/09/15
MATRIX	Units	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)					
cis-1,3-Dichloropropene	ug/L	<2.50	<2.50	<0.50	<0.50
trans-1,3-Dichloropropene	ug/L	<2.50	<2.50	<0.50	<0.50
Diisopropyl ether (DIPE)	ug/L	<2.50	<2.50	<0.50	<0.50
Ethyl tert-butyl ether (ETBE)	ug/L	<2.50	<2.50	<0.50	<0.50
Ethylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Hexachlorobutadiene	ug/L	<2.50	<2.50	<0.50	<0.50
Isopropylbenzene (Cumene)	ug/L	<2.50	<2.50	<0.50	<0.50
4-Isopropyltoluene	ug/L	<2.50	<2.50	<0.50	<0.50
Methyl tert-butyl ether (MTBE)	ug/L	**68.1**	**77.3**	<0.50	<0.50
Methylene chloride	ug/L	<2.50	<2.50	<0.50	<0.50
Naphthalene	ug/L	<2.50	<2.50	<0.50	<0.50
n-Propylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Styrene	ug/L	<2.50	<2.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
Tetrachloroethene	ug/L	<2.50	<2.50	<0.50	<0.50
Toluene	ug/L	<2.50	<2.50	<0.50	<0.50
1,2,3-Trichlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
1,2,4-Trichlorobenzene	ug/L	<2.50	<2.50	<0.50	<0.50
1,1,1-Trichloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/L	<2.50	<2.50	<0.50	<0.50
Trichloroethene	ug/L	<2.50	<2.50	<0.50	<0.50
Trichlorofluoromethane (Freon 11)	ug/L	<2.50	<2.50	<0.50	<0.50
1,2,3-Trichloropropane	ug/L	<2.50	<2.50	<0.50	<0.50
1,2,4-Trimethylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
1,3,5-Trimethylbenzene	ug/L	<2.50	<2.50	<0.50	<0.50
Vinyl chloride	ug/L	<2.50	<2.50	<0.50	<0.50
o-Xylene	ug/L	<2.50	<2.50	<0.50	<0.50
m- & p-Xylenes	ug/L	<2.50	<2.50	<0.50	<0.50
4-Bromofluorobenzene	[surr]	87.0%	87.0%	86.0%	89.0%
1,2-Dichlorobenzene-d4	[surr]	113%	117%	115%	115%

CHAIN-OF-CUSTODY RECORD

Company Name: AEC

Project Manager: J. Stein

Project Name: 2907 Churchville Rd

Project ID: 05-056-RF72

Sampler(s): S. Dessel

P.O. Number: 05-056-RF72

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

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

Analysis Requested

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 524.2	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
PW2907 - In	2/9/15	10:06	X			2	X	1+1 HCL		S020911-01
PW2907 - Mid 1	|	10:03	|			|	|	|		-02
PW2907 - Mid 2	|	10:00	|			|	|	|		-03
PW2907 - Eff	|	9:57	|			|	|	|		-04

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Robert Swanger	2/9/15 1455	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)
(Printed)		(Printed)

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

Lab Use:
Temp: 7.4 °C
- [ ] Received on Ice
- [ ] Received same day
- [ ] Preservation Appropriate

Delivery Method:
- [ ] Courier
- [x] Client
- [ ] UPS
- [ ] FedEx
- [ ] USPS
- [ ] Other: _____

Special Instructions/QC Requirements & Comments:
Results to: jstein
rswaninger
sdessel

Sample Disposal:
- [ ] Return to Client
- [x] Disposal by lab
- [ ] Archive for _____ days

MSS-F001-03/13

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 01/20/15 15:13

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		EFFLUENT	MID-3	MID-2	MID-1	INFLUENT
LAB SAMPLE ID:		5011410-01	5011410-02	5011410-03	5011410-04	5011410-05
SAMPLE DATE:		01/14/15	01/14/15	01/14/15	01/14/15	01/14/15
RECEIVED DATE:		01/14/15	01/14/15	01/14/15	01/14/15	01/14/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)						
tert-Amyl alcohol (TAA)	ug/L	<10.0	<10.0	<10.0	<10.0	<250
tert-Amyl methyl ether (TAME)	ug/L	<0.50	<0.50	<0.50	**0.52**	**18.8**
Benzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromoform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butanol (TBA)	ug/L	**20.8**	**93.6**	**143**	**186**	**262**
n-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
sec-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Carbon tetrachloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromo-3-chloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromoethane (EDB)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dichlorodifluoromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 01/20/15 15:13

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		EFFLUENT	MID-3	MID-2	MID-1	INFLUENT
LAB SAMPLE ID:		5011410-01	5011410-02	5011410-03	5011410-04	5011410-05
SAMPLE DATE:		01/14/15	01/14/15	01/14/15	01/14/15	01/14/15
RECEIVED DATE:		01/14/15	01/14/15	01/14/15	01/14/15	01/14/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)						
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Diisopropyl ether (DIPE)	ug/L	<0.50	<0.50	<0.50	<0.50	**13.5**
Ethyl tert-butyl ether (ETBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Hexachlorobutadiene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Isopropyltoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Methyl tert-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	**14.2**	**512**
Methylene chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Naphthalene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
n-Propylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Tetrachloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Toluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichlorofluoromethane (Freon 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Vinyl chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
o-Xylene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
m- & p-Xylenes	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Bromofluorobenzene	[surr]	92.0%	95.0%	93.0%	101%	97.0%
1,2-Dichlorobenzene-d4	[surr]	96.0%	97.0%	96.0%	100%	103%

CHAIN-OF-CUSTODY RECORD

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

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

Company Name:	Project Manager:
AEC	J. Stein
Project Name:	**Project ID:**
RF-72	05-056-RF72
Sampler(s):	**P.O. Number:**
S. Dessel	05-056-RF72

Analysis Requested: VOCs 524.2

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 524.2	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
Effluent	1/14/15	13:55	X			2	X	1+1HCL		5011410-01
Mid-3		13:59								-02
Mid-2		14:02								-03
Mid-1		14:06								-04
Influent		14:10								-05

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Stephen Dessel	1/14/15 14:53	Andrew Boecker			
(Printed) Stephen Dessel		(Printed) Andrew Boecker	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)			
(Printed)		(Printed)			

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

Lab Use:
Temp: 1.3 °C
- [x] Received on Ice
- [x] Received same day
- [x] Preservation Appropriate

Delivery Method:
- [ ] Courier
- [x] Client
- [ ] UPS
- [ ] FedEx
- [ ] USPS
- [ ] Other: _____

Special Instructions/QC Requirements & Comments:
Results to: jstein@aec-env.com
jwolf@aec-env.com
sdessel@aec-env.com

Sample Disposal:
- [ ] Return to Client
- [x] Disposal by lab
- [ ] Archive for _____ days

MSS-F001-03/13

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: Jeffery Stein

Report Issued: 02/05/15 11:29

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		EFFLUENT	MID-3	MID-2	MID-1	INFLUENT
LAB SAMPLE ID:		5013004-01	5013004-02	5013004-03	5013004-04	5013004-05
SAMPLE DATE:		01/29/15	01/29/15	01/29/15	01/29/15	01/29/15
RECEIVED DATE:		01/30/15	01/30/15	01/30/15	01/30/15	01/30/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)						
tert-Amyl alcohol (TAA)	ug/L	<10.0	<10.0	<10.0	<10.0	<250
tert-Amyl methyl ether (TAME)	ug/L	<0.50	<0.50	<0.50	<0.50	**15.5**
Benzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromoform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butanol (TBA)	ug/L	<10.0	<10.0	<10.0	<10.0	<250
n-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
sec-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Carbon tetrachloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromo-3-chloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromoethane (EDB)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dichlorodifluoromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: Jeffery Stein

Report Issued: 02/05/15 11:29

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		EFFLUENT	MID-3	MID-2	MID-1	INFLUENT
LAB SAMPLE ID:		5013004-01	5013004-02	5013004-03	5013004-04	5013004-05
SAMPLE DATE:		01/29/15	01/29/15	01/29/15	01/29/15	01/29/15
RECEIVED DATE:		01/30/15	01/30/15	01/30/15	01/30/15	01/30/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)						
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Diisopropyl ether (DIPE)	ug/L	<0.50	<0.50	<0.50	<0.50	**13.3**
Ethyl tert-butyl ether (ETBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Hexachlorobutadiene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Isopropyltoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Methyl tert-butyl ether (MTBE)	ug/L	<0.50	<0.50	**3.83**	**2.82**	**489**
Methylene chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Naphthalene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
n-Propylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Tetrachloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Toluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichlorofluoromethane (Freon 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Vinyl chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
o-Xylene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
m- & p-Xylenes	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Bromofluorobenzene	[surr]	89.0%	90.0%	88.0%	88.0%	89.0%
1,2-Dichlorobenzene-d4	[surr]	113%	114%	108%	111%	112%

CHAIN-OF-CUSTODY RECORD

Company Name: AEC

Project Manager: J. Stein

Project Name: RF-72

Project ID: 05-056-RF72

Sampler(s): S. Dessel

P.O. Number: 05-056-RF72

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

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

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Analysis Requested: VOCs 524.2	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
	1/29/15	per SD								
Effluent	~~1/30/15~~	9:02	X			2	X	1+1 HCL		5013004-01
Mid-3	|	9:05	|			|	|	|		-02
Mid-2	|	9:08	|			|	|	|		-03
Mid-1	|	9:11	|			|	|	|		-04
Influent	|	9:14	|			|	|	|		-05

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Stephen Dessel	1/30/15 10:17	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)
(Printed)	1/30/15 10:10	(Printed) Hannah Rosier

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

Lab Use:
Temp: 2.4 °C
- [x] Received on Ice
- [x] Received same day
- [x] Preservation Appropriate

Delivery Method:
- [ ] Courier
- [x] Client
- [ ] UPS
- [ ] FedEx
- [ ] USPS
- [ ] Other: _____

Special Instructions/QC Requirements & Comments:
Results to: jstein@aec-env.com
sdessel@aec-env.com

Sample Disposal:
- [ ] Return to Client
- [x] Disposal by lab
- [ ] Archive for _____ days

MSS-F001-03/13

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 02/12/15 17:10

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		RF-072 PW EFFLUENT	RF-072 PW MID3	RF-072 PW MID2	RF-072 PW MID1	RF-072 PW INFLUENT
LAB SAMPLE ID:		5020912-01	5020912-02	5020912-03	5020912-04	5020912-05
SAMPLE DATE:		02/09/15	02/09/15	02/09/15	02/09/15	02/09/15
RECEIVED DATE:		02/09/15	02/09/15	02/09/15	02/09/15	02/09/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (Water)						
tert-Amyl alcohol (TAA)	ug/L	<10.0	<10.0	<10.0	<10.0	<250
tert-Amyl methyl ether (TAME)	ug/L	<0.50	<0.50	<0.50	<0.50	**16.3**
Benzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromoform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butanol (TBA)	ug/L	<10.0	<10.0	**36.3**	**42.5**	<250
n-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
sec-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
tert-Butylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Carbon tetrachloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloroform	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Chloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Chlorotoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromo-3-chloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dibromoethane (EDB)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dibromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Dichlorodifluoromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
2,2-Dichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5

Analytical Results

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

Project: **RF-072**

Project Number: 05-056RF072

Project Manager: James Wolf

Report Issued: 02/12/15 17:10

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		RF-072 PW EFFLUENT	RF-072 PW MID3	RF-072 PW MID2	RF-072 PW MID1	RF-072 PW INFLUENT
LAB SAMPLE ID:		5020912-01	5020912-02	5020912-03	5020912-04	5020912-05
SAMPLE DATE:		02/09/15	02/09/15	02/09/15	02/09/15	02/09/15
RECEIVED DATE:		02/09/15	02/09/15	02/09/15	02/09/15	02/09/15
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)						
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Diisopropyl ether (DIPE)	ug/L	<0.50	<0.50	<0.50	<0.50	**14.0**
Ethyl tert-butyl ether (ETBE)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Ethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Hexachlorobutadiene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Isopropyltoluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Methyl tert-butyl ether (MTBE)	ug/L	<0.50	<0.50	**2.83**	**2.66**	**543**
Methylene chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Naphthalene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
n-Propylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Tetrachloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Toluene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,1-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichloroethene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Trichlorofluoromethane (Freon 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,3-Trichloropropane	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
Vinyl chloride	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
o-Xylene	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
m- & p-Xylenes	ug/L	<0.50	<0.50	<0.50	<0.50	<12.5
4-Bromofluorobenzene	[surr]	89.0%	88.0%	89.0%	91.0%	84.0%
1,2-Dichlorobenzene-d4	[surr]	111%	114%	111%	114%	110%

CHAIN-OF-CUSTODY RECORD

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

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

Company Name:	Project Manager:
AEC	J. Wolf
Project Name:	**Project ID:**
05-056-RF-72	05-056-RF-72
Sampler(s):	**P.O. Number:**
R. Swanger	

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 624.2									Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
[redacted]																		
[redacted]																		
RF-72 PW Effluent	2/9/15	9:55	X			2	X									1+1 HCL		5020912-01 A
RF-72 PW Mid 3	↓	10:00	X			↓	↓									↓		5020912-02 A
RF-72 PW Mid 2	↓	10:05	X			↓	↓									↓		5020912-03 A
RF-72 PW Mid 1	↓	10:10	X			↓	↓									↓		5020912-04 A
RF-72 PW Influent	↓	10:15	X			↓	↓									↓		5020912-05 A

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Robert Swanger	1555 2/9/15	(Printed) [illegible]	(Printed)		(Printed)

Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)
(Printed)		(Printed)

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

Lab Use:
Temp 7.4 °C
- ☒ Received on Ice
- ☒ Received same day
- ☒ Preservation Appropriate

Delivery Method:
- ☐ Courier
- ☒ Client
- ☐ UPS
- ☐ FedEx
- ☐ USPS
- ☐ Other: _____

Special Instructions/QC Requirements & Comments:
Email Results: J Wolf
J Stein
S Reed
R Swanger

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

MSS-F001-03/13

Attachment D

Carroll Water
purifying the essential

60 AILERON COURT, STE 3, WESTMINSTER, MD 21157
410-876-5100
www.carrollwater.com

SERVICE

Work Order # 231766
Date Scheduled 1/15/15
08:00 A
Tech Scheduled 3A: Eric S

SERVICE ADDRESS
ROYAL FARMS #072
DL - Ralph
2906 CHURCHVILLE RD
CHURCHVILLE MD 21028
410-734-6379
rfmaint@royalfarms.com

Account ID 107241178
Rcvd Date 01/05/15
PO#

Instructions
Tracking Number: 208611

Exchange carbon tanks.

Sclessel@Aec-env.com

Service Notes Exchanged 4 carbon tanks. All heads and o-rings are in bad shape and need to be replaced.

Royal Farm Stores #72
24 HR

Problems **FOLLOW UP NEEDED** [X]

Next visit replace heads + O-rings. Joe emailed Royal Farms to make them aware

Time In: 10:30 **Time Out:** 11:30 **Travel:** Home to Joe

Qty	Item#	Description	Each	Price
12	525	Carbon		$2080.00

Total Parts
Trip Charge
Labor
Total Amount Due $2080.00

Water Test Raw
pH
Hardness
Iron
TDS
Nitrates
Chlorine
Water Test Treated
pH
Hardness
Iron
TDS
Nitrates
Chlorine
RO TDS

Payment is due upon completion of work. Should it be necessary to obtain legal action or the services of a collection agency, all reasonable fees and court costs will be the customer's responsibility. The cost of these services will be added to your balance due. Finance charges of 2% per month will be added to balance over 30 days.

Payment Method _____ **CC#** _____

Check # _____ **Expiration Date** _____ **3 Digit Code** _____

P.O. #208611
email: Truszin@royalfarms.com

Serviced By Eric Sc **Date** _____ **Customer Signature** Travis Hess **Date** _____