Vapor Extraction / Groundwater Extraction (VE/GE) System
Monthly Update Report
January 2012

Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD 21901
MDE OCP Case No. 2011-0729-CE
Facility ID No. 13326

AEC Project Number: 05-056RF096

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

And

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

Prepared by:
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January 10, 2013

Site Information

Regulatory Agency:	Maryland Department of the Environment
Agency Contact:	Susan Bull
Royal Farms Contact:	Tom Ruszin
Consultant Contact:	Jeff Stein/James Wolf
Case Number:	OCP Case No. 2011-0729-CE
Facility ID:	13326
Current Case Status:	Vapor Extraction/ Groundwater Extraction (VE/GE) System in operation. Quarterly groundwater sampling. On-site and off-site potable well monitoring.
Reporting Period:	12-11-12 through 1-8-13
VE/GE System Operating Days:	28

VE/GE System Performance

The Vapor Extraction / Groundwater Extraction (VE/GE) System began operation on December 11, 2012. Since start-up, groundwater drawdown has been observed across the site through gauging of on-site monitoring wells. During gauging events, vacuum gauge readings were also taken to determine vacuum influence of the VE/GE System upon surrounding monitoring wells. Figure 1 in Attachment A illustrates the site vicinity. Figure 2 in Attachment A illustrates the groundwater monitoring well, tank-pit well, recovery well, bedrock monitoring well, and onsite potable drinking water well locations. A scaled depiction of the system layout is included in Figure 3 of Attachment A. Table 1 in Attachment B includes gauging and vacuum influence data obtained through weekly gauging events.

System performance has been monitored through readings taken from diagnostic gauges on system equipment. System monitoring worksheets are included in Attachment C. It should be noted that system discharge rates have been estimated through periodic flow rate measurements taken manually. A malfunctioning flow totalizer gauge is in the process of being replaced.

As of January 8, 2013, approximately 902,880 gallons of liquid and approximately 4,919,040 cubic feet of air have been processed by the system, removing approximately 520 pounds (or 83 gallons) of volatile organic compounds (VOCs). No liquid phase hydrocarbon (LPH) was recovered during this monitoring period. Table 2 in Attachment B summarizes the hydrocarbon recovery data, and Table 3 in summarizes the hydrocarbon recovery estimates.

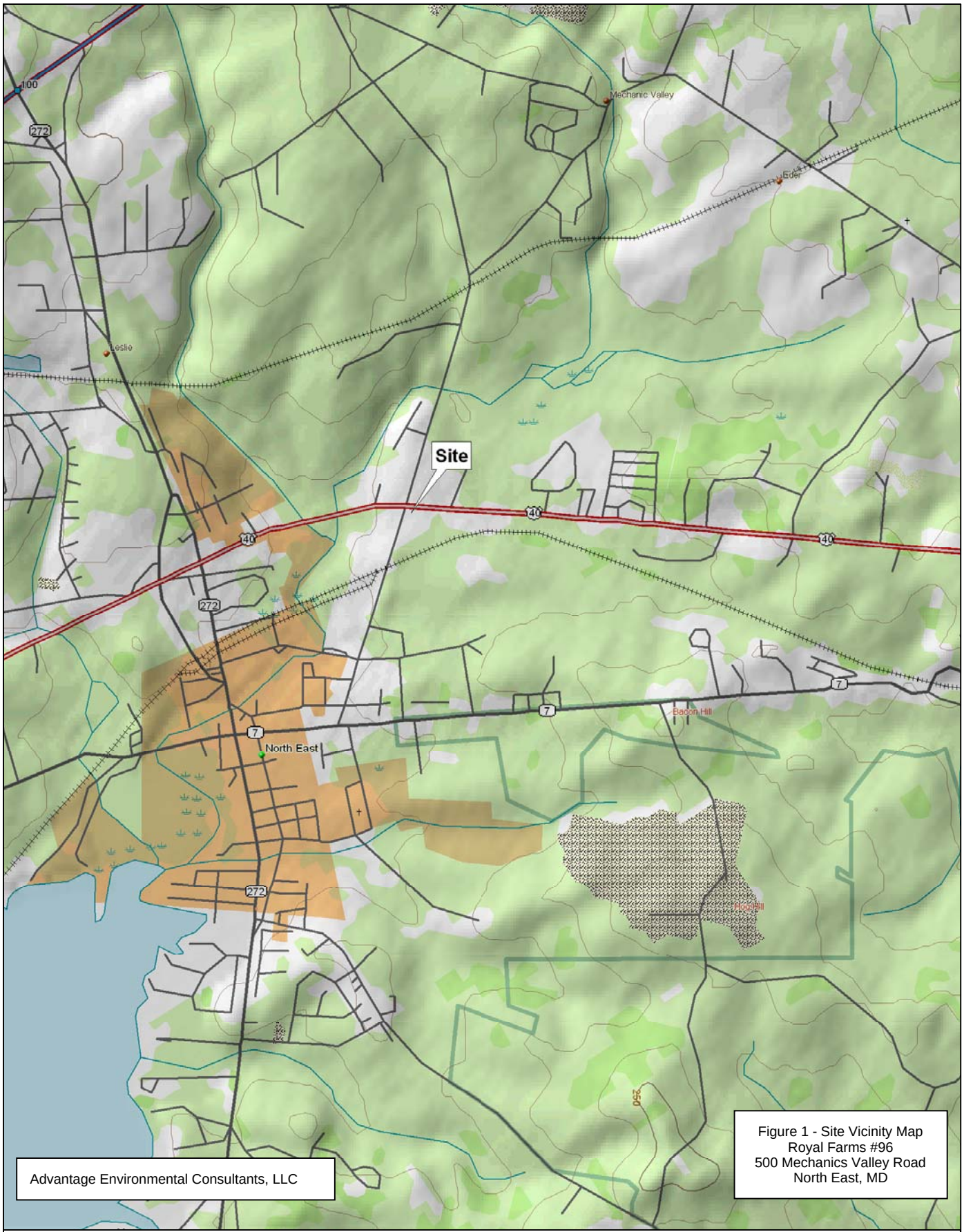
Figures

Figure 1 Site Vicinity Map
Figure 2 Site Features Map
Figure 3 Trenching Layout Map

Attachments

Attachment A Figures
Attachment B Tables
Attachment C System Monitoring Worksheets

Attachment A



Advantage Environmental Consultants, LLC

Figure 1 - Site Vicinity Map
Royal Farms #96
500 Mechanics Valley Road
North East, MD

DeLORME

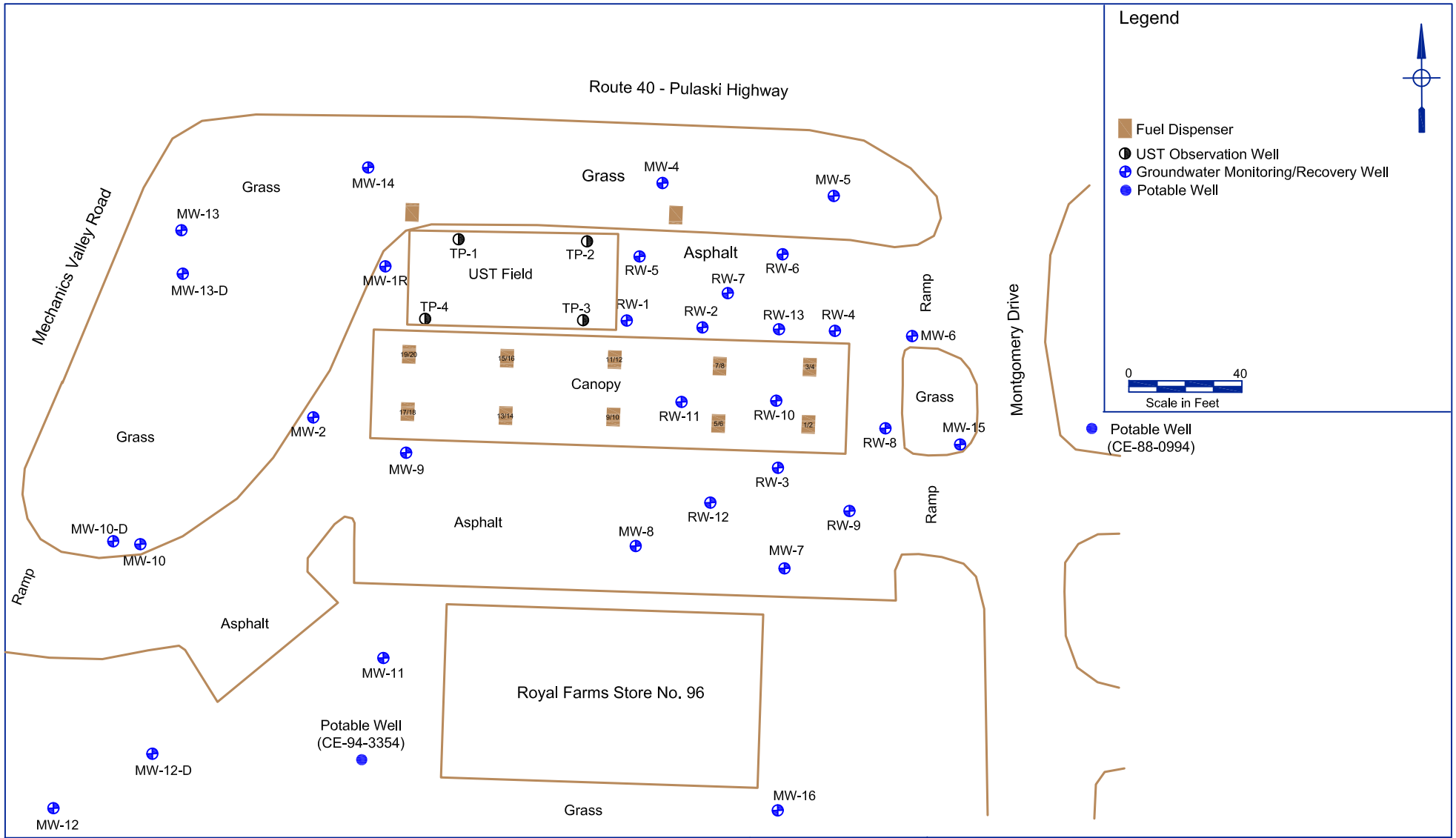
Zoom Level: 12-7 Datum: WGS84

Scale 1 : 28,125

1" = 2,343.75 ft

0 ¼ ½ ¾ 1 mi
0 ½ 1 1½ 2 km

TN
MN
11.7°W



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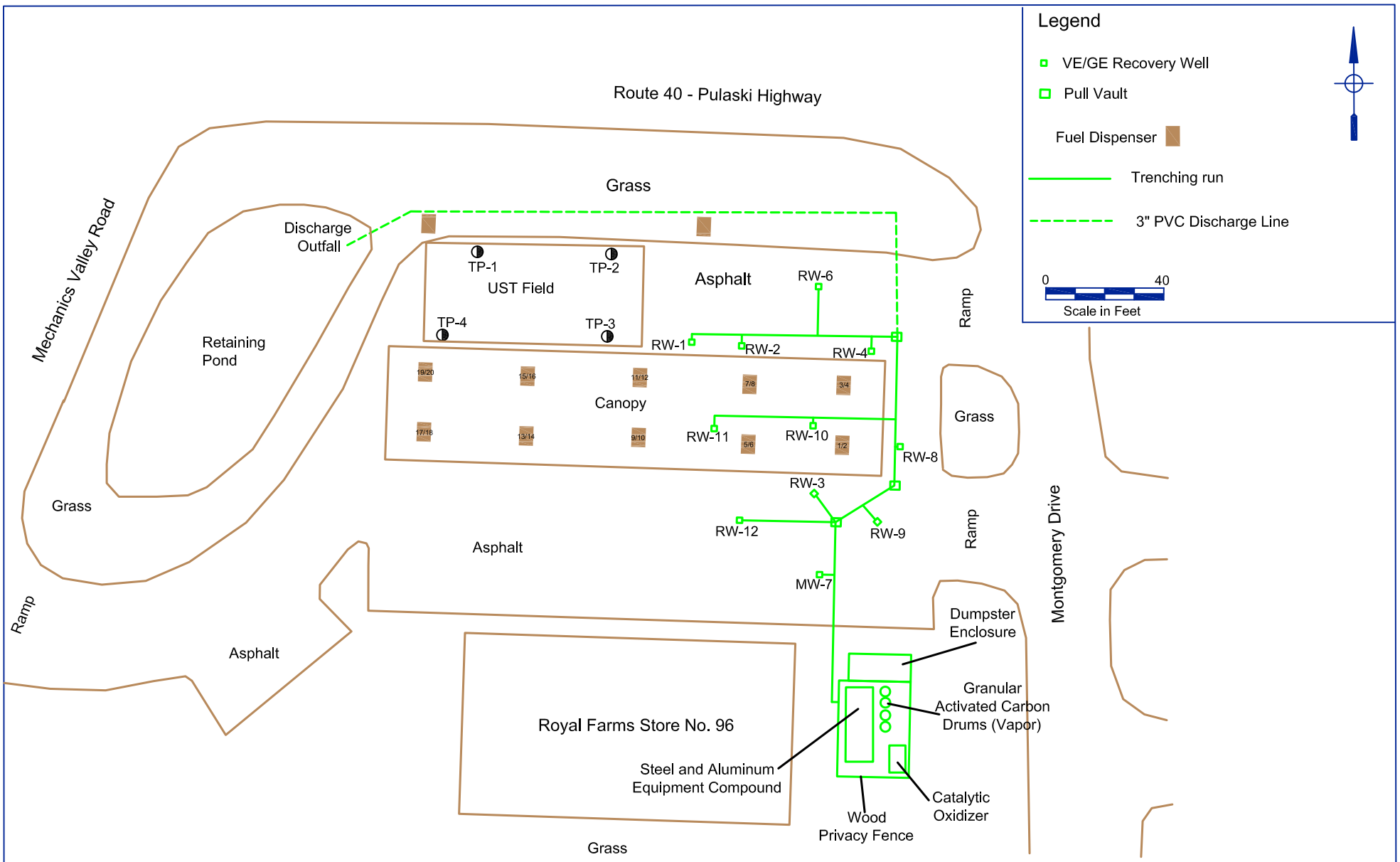
Project No.: 05-056	Drawn by: JDW
Task No.: RF96	Date: 12-15-2012
File: Site Features	Revision No.: 2

Figure 2 - Site Features Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



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Project No.: 05-056	Drawn by: JDW
Task No.: RF96	Date: 1-2-13
File: Site Features	Revision No.: 1

Figure 3 -Trenching Layout Map - As Built
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD

Attachment B

Table 1 - Well Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanic Valley Road, North East, Maryland 21901

Well ID	Date	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments	Vacuum Pressure
MW-1R	12/10/2012	11.08	ND	94.74	83.66	NA	NA	NA		NA
	12/11/2012	12.20	ND	94.74	82.54	NA	NA	NA		0.20
	12/20/2012	13.77	ND	94.74	80.97	NA	NA	NA		0.10
	12/24/2012	13.00	ND	94.74	81.74	NA	NA	NA		0.05
	1/4/2013	14.00	ND	94.74	80.74	NA	NA	NA		0.11
	1/8/2013	14.20	ND	94.74	80.54	NA	NA	NA		0.12
MW-2	12/10/2012	12.46	ND	95.86	83.40	NA	NA	NA		NA
	12/11/2012	13.92	ND	95.86	81.94	NA	NA	NA		0.08
	12/20/2012	15.28	ND	95.86	80.58	NA	NA	NA		0.04
	12/24/2012	14.49	ND	95.86	81.37	NA	NA	NA		0.04
	1/4/2013	15.40	ND	95.86	80.46	NA	NA	NA		0.00
	1/8/2013	15.70	ND	95.86	80.16	NA	NA	NA		0.00
MW-4	12/10/2012	12.95	ND	96.87	83.92	NA	NA	NA		NA
	12/11/2012	14.46	ND	96.87	82.41	NA	NA	NA		1.00
	12/20/2012	17.45	ND	96.87	79.42	NA	NA	NA		2.90
	12/24/2012	14.72	ND	96.87	82.15	NA	NA	NA		1.50
	1/4/2013	16.19	ND	96.87	80.68	NA	NA	NA		2.90
	1/8/2013	16.32	ND	96.87	80.55	NA	NA	NA		2.50
MW-5	12/10/2012	14.42	ND	98.39	83.97	NA	NA	NA		NA
	12/11/2012	15.93	ND	98.39	82.46	NA	NA	NA		0.39
	12/20/2012	15.93	ND	98.39	82.46	NA	NA	NA		4.70
	12/24/2012	16.37	ND	98.39	82.02	NA	NA	NA		0.75
	1/4/2013	17.59	ND	98.39	80.80	NA	NA	NA		2.00
	1/8/2013	17.74	ND	98.39	80.65	NA	NA	NA		1.60
MW-6	12/10/2012	15.01	ND	98.91	83.90	NA	NA	NA		NA
	12/11/2012	16.24	ND	98.91	82.67	NA	NA	NA		5.00
	12/20/2012	17.93	ND	98.91	80.98	NA	NA	NA		6.00
	12/24/2012	16.55	ND	98.91	82.36	NA	NA	NA		3.90
	1/4/2013	17.96	ND	98.91	80.95	NA	NA	NA		7.00
	1/8/2013	18.35	ND	98.91	80.56	NA	NA	NA		6.50
MW-7*	12/10/2012	14.27	ND	97.75	83.48	NA	NA	NA	Depth to Groundwater Pump intake: 16.5 ft.	
MW-8	12/10/2012	14.29	ND	97.81	83.52	NA	NA	NA		NA
	12/11/2012	16.81	ND	97.81	81.00	NA	NA	NA		2.00
	12/20/2012	17.53	ND	97.81	80.28	NA	NA	NA		2.70
	12/24/2012	17.00	ND	97.81	80.81	NA	NA	NA		4.80
	1/4/2013	18.00	ND	97.81	79.81	NA	NA	NA		0.22
	1/8/2013	18.37	ND	97.81	79.44	NA	NA	NA		2.70
MW-9	12/10/2012	13.29	ND	96.73	83.44	NA	NA	NA	Mod. Odor	NA
	12/11/2012	14.87	ND	96.73	81.86	NA	NA	NA	Mod. Odor	0.00
	12/20/2012	16.28	ND	96.73	80.45	NA	NA	NA	Mod. Odor	0.00
	12/24/2012	15.42	ND	96.73	81.31	NA	NA	NA	Mod. Odor	0.00
	1/4/2013	16.42	ND	96.73	80.31	NA	NA	NA	Slight Odor	0.02
	1/8/2013	16.71	ND	96.73	80.02	NA	NA	NA	Mod. Odor	0.00
MW-10	12/10/2012	11.73	ND	94.95	83.22	NA	NA	NA		NA
	12/11/2012	12.93	ND	94.95	82.02	NA	NA	NA		0.03

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500 Mechanic Valley Road, North East, Maryland 21901

	12/20/2012	14.25	ND	94.95	80.70	NA	NA	NA		0.03
	12/24/2012	16.42	ND	94.95	78.53	NA	NA	NA		0.00
	1/4/2013	14.31	ND	94.95	80.64	NA	NA	NA		0.04
	1/8/2013	14.58	ND	94.95	80.37	NA	NA	NA		0.04
MW-11	12/10/2012	15.50	ND	98.69	83.19	NA	NA	NA		NA
	12/11/2012	17.09	ND	98.69	81.60	NA	NA	NA		0.00
	12/20/2012	18.23	ND	98.69	80.46	NA	NA	NA		0.00
	12/24/2012	17.44	ND	98.69	81.25	NA	NA	NA		0.00
	1/4/2013	18.32	ND	98.69	80.37	NA	NA	NA		0.00
	1/8/2013	18.66	ND	98.69	80.03	NA	NA	NA		0.00
MW-12	12/10/2012	14.03	ND	96.75	82.72	NA	NA	NA		NA
	12/11/2012	14.96	ND	96.75	81.79	NA	NA	NA		0.02
	12/20/2012	16.16	ND	96.75	80.59	NA	NA	NA		0.03
	12/24/2012	15.35	ND	96.75	81.40	NA	NA	NA		0.02
	1/4/2013	16.09	ND	96.75	80.66	NA	NA	NA		0.00
	1/8/2013	16.34	ND	96.75	80.41	NA	NA	NA		0.00
MW-13	12/10/2012	8.35	ND	91.72	83.37	NA	NA	NA		NA
	12/11/2012	8.81	ND	91.72	82.91	NA	NA	NA		0.00
	12/20/2012	9.96	ND	91.72	81.76	NA	NA	NA		0.03
	12/24/2012	9.51	ND	91.72	82.21	NA	NA	NA		0.00
	1/4/2013	10.18	ND	91.72	81.54	NA	NA	NA		0.03
	1/8/2013	10.32	ND	91.72	81.40	NA	NA	NA		0.02
MW-14	12/10/2012	10.23	ND	94.07	83.84	NA	NA	NA		NA
	12/11/2012	11.03	ND	94.07	83.04	NA	NA	NA		0.00
	12/20/2012	12.49	ND	94.07	81.58	NA	NA	NA		0.05
	12/24/2012	11.82	ND	94.07	82.25	NA	NA	NA		0.00
	1/4/2013	12.73	ND	94.07	81.34	NA	NA	NA		0.00
	1/8/2013	12.85	ND	94.07	81.22	NA	NA	NA		0.00
MW-15	12/10/2012	16.36	ND	99.77	83.41	NA	NA	NA		NA
	12/11/2012	17.56	ND	99.77	82.21	NA	NA	NA		3.80
	12/20/2012	19.92	ND	99.77	79.85	NA	NA	NA		2.40
	12/24/2012	18.26	ND	99.77	81.51	NA	NA	NA		1.00
	1/4/2013	19.75	ND	99.77	80.02	NA	NA	NA		5.50
	1/8/2013	20.08	ND	99.77	79.69	NA	NA	NA		2.40
MW-16	12/10/2012	7.56	ND	98.73	91.17	NA	NA	NA		NA
	12/11/2012	7.30	ND	98.73	91.43	NA	NA	NA		0.00
	12/20/2012	8.17	ND	98.73	90.56	NA	NA	NA		0.00
	12/24/2012	7.96	ND	98.73	90.77	NA	NA	NA		0.00
	1/4/2013	8.02	ND	98.73	90.71	NA	NA	NA		0.05
	1/8/2013	8.03	ND	98.73	90.70	NA	NA	NA		0.05
MW-10-D	12/10/2012	13.53	ND	94.05	80.52	NA	NA	NA		NA
	12/20/2012	17.51	ND	94.05	76.54	NA	NA	NA		NM
	12/24/2012	16.55	ND	94.05	77.50	NA	NA	NA		NM
	1/4/2013	16.99	ND	94.05	77.06	NA	NA	NA		NM
	1/8/2013	17.31	ND	94.05	76.74	NA	NA	NA		NM
MW-12-D	12/10/2012	27.34	ND	96.25	68.91	NA	NA	NA		NA
	12/20/2012	42.81	ND	96.25	53.44	NA	NA	NA		NM
	12/24/2012	41.17	ND	96.25	55.08	NA	NA	NA		NM
	1/4/2013	40.97	ND	96.25	55.28	NA	NA	NA		NM
	1/8/2013	41.25	ND	96.25	55.00	NA	NA	NA		NM

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MW-13-D	12/10/2012	17.26	ND	91.85	74.59	NA	NA	NA		NA
	12/20/2012	24.43	ND	91.85	67.42	NA	NA	NA		NM
	12/24/2012	23.94	ND	91.85	67.91	NA	NA	NA		NM
	1/4/2013	24.16	ND	91.85	67.69	NA	NA	NA		NM
	1/8/2013	22.84	ND	91.85	69.01	NA	NA	NA		NM
TP-1	12/10/2012	11.04	ND	NM	NA	NA	NA	NA		NA
	12/20/2012	14.32	ND	NM	NA	NA	NA	NA		0.06
	12/24/2012	13.60	ND	NM	NA	NA	NA	NA		0.06
	1/4/2013	14.75	ND	NM	NA	NA	NA	NA		0.04
	1/8/2013	14.98	ND	NM	NA	NA	NA	NA		0.05
TP-2	12/10/2012	11.37	ND	NM	NA	NA	NA	NA		NA
	12/20/2012	15.24	ND	NM	NA	NA	NA	NA		0.06
	12/24/2012	14.51	ND	NM	NA	NA	NA	NA		0.05
	1/4/2013	15.68	ND	NM	NA	NA	NA	NA		0.07
	1/8/2013	15.89	ND	NM	NA	NA	NA	NA		0.06
TP-3	12/10/2012	12.72	ND	NM	NA	NA	NA	NA		NA
	12/20/2012	15.96	ND	NM	NA	NA	NA	NA		0.05
	12/24/2012	15.23	ND	NM	NA	NA	NA	NA		0.04
	1/4/2013	16.40	ND	NM	NA	NA	NA	NA		0.08
	1/8/2013	16.60	ND	NM	NA	NA	NA	NA		0.08
TP-4	12/10/2012	12.82	ND	NM	NA	NA	NA	NA		NA
	12/20/2012	15.12	ND	NM	NA	NA	NA	NA		0.06
	12/24/2012	14.38	ND	NM	NA	NA	NA	NA		0.05
	1/4/2013	15.55	ND	NM	NA	NA	NA	NA		0.05
	1/8/2013	15.76	ND	NM	NA	NA	NA	NA		0.06
RW-1*	12/10/2012	12.50	ND	95.92	83.42	NA	NA	NA	Depth to Groundwater Pump intake: 14.5 ft.	
RW-2*	12/10/2013	13.80	13.80	96.21	82.41	82.41	82.41	0.00 Sheen	Depth to Groundwater Pump intake: 15.0 ft.	
RW-3*	12/10/2013	14.55	ND	97.59	83.04	NA	NA	NA	Depth to Groundwater Pump intake: 16.5 ft.	
RW-4*	12/10/2013	14.15	14.15	97.38	83.23	83.23	83.23	0.00 Sheen	Depth to Groundwater Pump intake: 15.0 ft.	
RW-5	12/10/2012	12.41	ND	96.21	83.80	NA	NA	NA		NA
	12/20/2012	15.80	ND	96.21	80.41	NA	NA	NA		7.00
	12/24/2012	15.02	ND	96.21	81.19	NA	NA	NA		3.90
	1/4/2013	16.39	ND	96.21	79.82	NA	NA	NA		8.00
	1/8/2013	16.66	ND	96.21	79.55	NA	NA	NA		8.00
RW-6*	12/10/2013	13.33	ND	96.78	83.45	NA	NA	NA	Depth to Groundwater Pump intake: 15.5 ft.	
RW-7	12/10/2013	13.23	ND	96.60	83.37	NA	NA	NA		NA
	12/20/2012	16.09	ND	96.60	80.51	NA	NA	NA		13.00
	12/24/2012	16.28	ND	96.60	80.32	NA	NA	NA		15.00
	1/4/2013	17.22	ND	96.60	79.38	NA	NA	NA		21.00
	1/8/2013	17.60	ND	96.60	79.00	NA	NA	NA		21.00
RW-8*	12/10/2013	13.60	ND	97.98	84.38	NA	NA	NA	Depth to Groundwater Pump intake: 13.75 ft.	
RW-9*	12/10/2012	7.30	ND	97.25	89.95	NA	NA	NA	Depth to Groundwater Pump intake: 9.5 ft.	

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Gasoline Fueling Station – Royal Farms No. 96
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RW-10*	12/10/2013	13.87	13.87	96.98	83.11	83.11	83.11	0.00 Sheen	Depth to Groundwater Pump intake: 16.0 ft.	
RW-11*	12/10/2013	13.21	13.21	96.29	83.08	83.08	83.08	0.00 Sheen	Depth to Groundwater Pump intake: 15.0 ft.	
RW-12*	12/10/2013	13.70	ND	98.20	84.50	NA	NA	NA	Depth to Groundwater Pump intake: 14.5 ft.	
RW-13	12/10/2012	14.37	14.37	97.52	83.15	83.15	83.15	0.00	Sheen	NA
	12/20/2012	17.64	ND	97.52	79.88	NA	NA	NA		6.00
	12/24/2012	17.26	ND	97.52	80.26	NA	NA	NA		2.20
	1/4/2013	18.05	ND	97.52	79.47	NA	NA	NA		7.00
	1/8/2013	18.46	ND	97.52	79.06	NA	NA	NA		7.00

* - Well used for recovery by the VE/GE System
VE/GE System began operation 12/11/2012
LPH = Liquid Phase Hydrocarbon
TOC = Top of Casing Elevation
ND = None Detected
NA = Not Applicable
NG = Not Gauged
NM = Not Measured
Vacuum pressure readings measured in inches of water
Corrected water elevation based on LPH density of 0.7 grams per milliliter

Table 2 - VE/GE System Quarterly Hydrocarbon Recovery Data
Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Monitoring Period	Operating Days	Dissolved Phase				Maximum System Discharge Flow Rate (gpm)	Period GW Discharge (gallons)	Cumulative GW Discharge (gallons)	Average Extraction Rate per Well (gpm)	Average Extraction Rate for System (gpm)	Vapor Phase	
		System Influent Dissolved Benzene Concentration (ug/L)	System Influent Dissolved BTEX Concentration (ug/L)	System Influent Dissolved MTBE Concentration (ug/L)	System Influent Dissolved TPH-GRO Concentration (ug/L)						PID (ppm)	Airflow (cfm)
12/11/12 - 1/8/13	28	503	2007	0	2870	25	902,880.0	902,880.0	2.27	22.39	351	122

BTEX = Benzene, toulene, ethylbenzene and xylenes

Calculation used for dissolved phase recovery in pounds: Flow rate gpm * contaminate concentration ug/L * 3.785 L/gal * 1440 min/day *(2.205 lbs/10^9 ug)

Calculation used for dissolved phase recovery in gallons: Flow rate gpm * contaminate concentration ug/L * 3.785 L/gal * 1440 min/day *(2.205 lbs/10^9 ug) / 6.25 lbs/gal

Groundwater discharge is estimated for period 12/11/12 through 1/2/13 due to malfunction in discharge totalizer

Table 3 - VE/GE System Quarterly Hydrocarbon Recovery Estimates
Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Monitoring Period	Gallons of Hydrocarbons (BTEX) Recovered During Period			Period Total Gallons	Cumulative Gallons to Date	Pounds of Hydrocarbons (BTEX) Recovered During Period					Period Total Pounds	Cumulative Pounds to Date
	Liquid (gallons)	Dissolved (gallons)	Vapor (gallons)			Liquid (lbs)	Dissolved (lbs)	Dissolved (lbs/day)	Vapor (lbs)	Vapor (lbs/day)		
12/11/12 - 1/8/13	0	2.42	80.88	83.30	83.30	0.00	15.12	0.54	505.51	18.05	520.64	520.64

BTEX = Benzene, toulene, ethylbenzene and xylenes

Calculation used for dissolved phase recovery in pounds: Flow rate gpm * contaminate concentration ug/L * 3.785 L/gal * 1440 min/day *(2.205 lbs/10^9 ug)

Calculation used for dissolved phase recovery in gallons: Flow rate gpm * contaminate concentration ug/L * 3.785 L/gal * 1440 min/day *(2.205 lbs/10^9 ug) / 6.25 lbs/gal

Attachment C

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/13/2012
Time: 10:00
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	68.9
Electric (kw/h)	

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	143
AWS-1 Vacuum Pressure (inHg)	8.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	115
Pressure to Wells (psi)	21
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	48
Sump Transfer Pump Pressure (psi)	40
Bag Filter Vessel Pressure (psi)	36
Carbon 1 Pressure (psi)	29
Carbon 2 Pressure (psi)	10
Flow Meter Totalizer Value (gallons)	22,490
Flow Rate (gal/min)	25

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	761
Chart Recorder Functional	No
Inlet Pressure (in of water)	0.7

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/14/2012
Time: 14:30
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.5
Run Time (hours)	97.0
Electric (kw/h)	4,331

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	136
AWS-1 Vacuum Pressure (inHg)	7.5
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	124
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	49
Sump Transfer Pump Pressure (psi)	40
Bag Filter Vessel Pressure (psi)	32
Carbon 1 Pressure (psi)	28
Carbon 2 Pressure (psi)	12
Flow Meter Totalizer Value (gallons)	31,910
Flow Rate (gal/min)	25

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	735
Chart Recorder Functional	No
Inlet Pressure (in of water)	0.76

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/19/2012
Time: 9:30
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	211.0
Electric (kw/h)	9,557
VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	136
AWS-1 Vacuum Pressure (inHg)	7.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	114
Pressure to Wells (psi)	21
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	43
Sump Transfer Pump Pressure (psi)	52
Bag Filter Vessel Pressure (psi)	49
Carbon 1 Pressure (psi)	46
Carbon 2 Pressure (psi)	3
Flow Meter Totalizer Value (gallons)	67,480
Flow Rate (gal/min)	25

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	684
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.72

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/20/2012
Time: 12:00
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	15.5
Run Time (hours)	238.9
Electric (kw/h)	

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	151
AWS-1 Vacuum Pressure (inHg)	9.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	125
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	48
Sump Transfer Pump Pressure (psi)	56
Bag Filter Vessel Pressure (psi)	50
Carbon 1 Pressure (psi)	47
Carbon 2 Pressure (psi)	5
Flow Meter Totalizer Value (gallons)	74,915
Flow Rate (gal/min)	25

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	695
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.65

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/24/2012
Time: 9:20
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	309.3
Electric (kw/h)	14,021
VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	197
AWS-1 Vacuum Pressure (inHg)	12.5
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	118
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	36
Sump Transfer Pump Pressure (psi)	50
Bag Filter Vessel Pressure (psi)	45
Carbon 1 Pressure (psi)	38
Carbon 2 Pressure (psi)	20
Flow Meter Totalizer Value (gallons)	78,660
Flow Rate (gal/min)	25

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	655
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.42

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/26/2012
Time: 16:15
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	364.2
Electric (kw/h)	16,705

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	198
AWS-1 Vacuum Pressure (inHg)	12.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	119
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	44
Sump Transfer Pump Pressure (psi)	50
Bag Filter Vessel Pressure (psi)	47
Carbon 1 Pressure (psi)	40
Carbon 2 Pressure (psi)	30
Flow Meter Totalizer Value (gallons)	93,350
Flow Rate (gal/min)	20

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	649
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.38

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/28/2012
Time: 9:00
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	406.0
Electric (kw/h)	18,732
VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	182
AWS-1 Vacuum Pressure (inHg)	11.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	120
Pressure to Wells (psi)	21
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	44
Sump Transfer Pump Pressure (psi)	50
Bag Filter Vessel Pressure (psi)	46
Carbon 1 Pressure (psi)	41
Carbon 2 Pressure (psi)	30
Flow Meter Totalizer Value (gallons)	104,635
Flow Rate (gal/min)	20

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	629
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.37

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 12/31/2012
Time: 12:00
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	481.0
Electric (kw/h)	22,493
VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	160
AWS-1 Vacuum Pressure (inHg)	9.0
Dilution Valve (% open)	22
Compressor Tank Pressure (psi)	116
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	43
Sump Transfer Pump Pressure (psi)	54
Bag Filter Vessel Pressure (psi)	50
Carbon 1 Pressure (psi)	45
Carbon 2 Pressure (psi)	28
Flow Meter Totalizer Value (gallons)	126,120
Flow Rate (gal/min)	20

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	631
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.4

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 1/2/2013
Time: 9:15
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	525.5
Electric (kw/h)	24,867

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	164
AWS-1 Vacuum Pressure (inHg)	10.0
Dilution Valve (% open)	22
Compressor Tank Pressure (psi)	120
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	40
Sump Transfer Pump Pressure (psi)	55
Bag Filter Vessel Pressure (psi)	52
Carbon 1 Pressure (psi)	48
Carbon 2 Pressure (psi)	30
Flow Meter Totalizer Value (gallons)	135,500
Flow Rate (gal/min)	16

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	608
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.38

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 1/4/2013
Time: 10:00
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	574.4
Electric (kw/h)	27,520
VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	155
AWS-1 Vacuum Pressure (inHg)	10.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	123
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	40
Sump Transfer Pump Pressure (psi)	56
Bag Filter Vessel Pressure (psi)	52
Carbon 1 Pressure (psi)	48
Carbon 2 Pressure (psi)	30
Flow Meter Totalizer Value (gallons)	144,820
Flow Rate (gal/min)	16

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	609
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.38

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 1/7/2013
Time: 9:15
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	644.3
Electric (kw/h)	31,034

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	167
AWS-1 Vacuum Pressure (inHg)	10.5
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	113
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	48
Sump Transfer Pump Pressure (psi)	58
Bag Filter Vessel Pressure (psi)	52
Carbon 1 Pressure (psi)	50
Carbon 2 Pressure (psi)	35
Flow Meter Totalizer Value (gallons)	159,370
Flow Rate (gal/min)	16

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	607
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.38

VE/GE System Monitoring Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD

Date: 1/8/2013
Time: 8:45
Recorded By: JDW

Main Control Panel	
System Running (Y/N)	Yes
Alarm Condition (Y/N)	No
Circuits Tripped (Y/N)	No
Stripper Backpressure (psig)	16.0
Run Time (hours)	667.7
Electric (kw/h)	32,559

VE/GE System - Building Interior	
SVE Exhaust Temperature (°F)	160
AWS-1 Vacuum Pressure (inHg)	10.0
Dilution Valve (% open)	0
Compressor Tank Pressure (psi)	125
Pressure to Wells (psi)	22
GW Return Pressure (psi)	0
Ambient Room Temperature (°F)	40
Sump Transfer Pump Pressure (psi)	58
Bag Filter Vessel Pressure (psi)	55
Carbon 1 Pressure (psi)	52
Carbon 2 Pressure (psi)	37
Flow Meter Totalizer Value (gallons)	164,030
Flow Rate (gal/min)	16

Catalytic Oxidizer	
Normal Display	Yes
Inlet Temperature (°F)	550
Outlet Temperature (°F)	607
Chart Recorder Functional	Yes
Inlet Pressure (in of water)	0.38