ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

Corrective Action Plan

Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, Cecil County, Maryland 21901

OCP Case No. 2011-0729-CE
MDE Facility No. 13326

AEC Project Number: 05-056 RF096

Prepared for:
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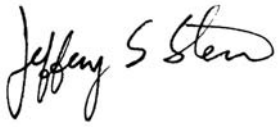

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TABLE OF CONTENTS

APPENDICES

Figures

Tables

1.0 INTRODUCTION

1.1 Project Overview

As required in Maryland Department of the Environment (MDE) Oil Control Program (OCP) correspondence, dated June 29, 2011, Advantage Environmental Consultants, LLC (AEC) has prepared this Corrective Action Plan (CAP) which presents the design of a dual-phase enhanced fluid recovery (EFR) system for the property located at 500 Mechanics Valley Road in North East, Maryland. A Site Vicinity Map is provided in Appendix A as Figure 1. The MDE OCP Case Number is 2011-0729-CE. The MDE Facility Identification Number is 13326. This report was prepared in accordance with the MDE OCP guidelines set forth in the Maryland Environmental Assessment Technology (MEAT) for Leaking Underground Storage Tanks (LUSTs) document, Revised February 2003.

1.2 Site Description and Previous Work History

The Site is situated in a commercial/residential area located southeast of the intersection of Mechanics Valley Road and Pulaski Highway in North East, Cecil County, Maryland. The Site is developed with a convenience store/gasoline fueling station and associated asphalt- and concrete-paved areas. The Site currently operates three fiberglass wrapped composite steel underground storage tanks (USTs) which distribute fuel to 12 product dispensers (two diesel and 10 gasoline). The system consists of the following: a 20,000 gallon unleaded regular UST, a 12,000 gallon super unleaded UST, and a 12,000 gallon diesel UST. A Site Features Map is included as Figure 2 in Appendix A. The surrounding properties include single family residences to the west, and commercial properties to the south, east and north. A Site Area Map is included as Figure 3 in Appendix A.

On June 8, 2011, AEC was performing an annual groundwater sampling event in accordance with Code of Maryland Regulations (COMAR) 26.10.02.03-04, when approximately two-inches of Liquid Phase Hydrocarbon (LPH) was detected in groundwater monitoring well MW-3. The LPH was observed to be golden in color, indicating ‘un-weathered’ gasoline. AEC inspected the submersible turbine pump (STP) containment sumps, which were observed to be free of LPH. Royal Farms was informed of the field observations made by AEC and a suspected release of petroleum was reported to the MDE on June 8, 2011. On June 13, 2011 the MDE OCP opened a case in response to a report of evidence of a petroleum spill at the Site. The exact cause of the release is still being investigated. Upon determination of the cause of the release a report will be prepared and submitted to the MDE.

Pursuant to the MDE OCP Report of Observations dated June 14, 2011, AEC performed a subsurface investigation between June 16 and 21, 2011. This investigation included the collection of soil samples from 24 boring locations (B-1 through B-24) in order to delineate the extent of hydrocarbon impact. The borings were advanced to depths ranging from 15 to 20 feet below ground surface (bgs). Temporary piezometers

were installed in all but one of the borings in order to delineate the extent of LPH and dissolved-phase hydrocarbon (DPH) impact. The initial borings were advanced around MW-3 and the subsequent borings arrayed outward from MW-3. A map illustrating the soil boring/temporary piezometer locations is included as Figure 4 in Appendix A.

The temporary piezometers have been gauged daily since installation. Static groundwater was measured at depths within the temporary piezometers ranging from approximately 6.96 feet bgs in B-23 to 14.62 feet bgs in B-12. The maximum measurable LPH thicknesses were detected in the following piezometers: B-2 at a thickness of 0.81 feet on June 20, 2011; B-6 at a thickness of 1.20 feet on June 26, 2011; B-9 at a thickness of 1.40 feet on July 19, 2011; B-10 at a thickness of 1.29 feet on June 24, 2011; B-13 at a thickness of 0.55 feet on July 19, 2011; and, B-22 at a thickness of 6.91 feet on July 11, 2011. LPH sheen was observed in B-1, B-8 and B-15 on June 28, 2011. All of the other temporary piezometers did not contain LPH during any of the gauging events.

Soil samples were collected from each boring at the time of drilling activities, and groundwater samples were collected from the temporary piezometers using a disposable high-density polyethylene (HDPE) bailer between June 22 and June 24, 2011. At least 5 days elapsed between piezometers installation and sample collection. Temporary piezometers which contained LPH were not sampled.

The results of the soil sample laboratory analyses identified no detectible concentrations of benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO), or TPH Diesel Range Organics (DRO) in soil samples B-3-7', B-7-20', B-8-13', B-12-20', B-17-20', B-18-7', B-20-20', B-21-20', B-22-7', B-23-6', and B-24-14'. BTEX, MTBE, TPH DRO and/or TPH GRO were present is soil samples B-2-7', B-4-12', B-5-8', B-9-7', B-10-6', B-11-12', B-12-10', B-14-7', B-16-7', B-18-7', and B-19-8' at concentrations less than their respective MDE Non-Residential Cleanup Standards for Soil (i.e., Generic Numeric Cleanup Standards for Groundwater and Soil – Interim Final Guidance Update No. 2.1 – June, 2008). BTEX, MTBE, TPH DRO and/or TPH GRO were present is soil samples B-1-9', B-6-8', B-10-13', and B-15-11' at concentrations greater than their respective MDE Non-Residential Cleanup Standards for Soil.

The results of the groundwater sample laboratory analyses identified varying concentrations of BTEX, MTBE, naphthalene, TPH GRO, and/or TPH DRO greater than their respective MDE Cleanup Standards for Type I and Type II Aquifers in all of the groundwater samples collected from the temporary piezometers. Groundwater samples were not collected from B-3, B-19, B-21, and B-24 because they were dry at the time the groundwater sampling activities were performed. No samples were collected from B-6, B-10, B-13, and B-22 based on the presence of LPH.

Other activities conducted as part of the investigation included the following: collection and analysis of groundwater samples from the potable drinking water wells located at 463, 475, 487, 493, 505 and 513 Mechanics Valley Road; and, installation of granular

activated carbon (GAC) filtration systems on the potable drinking water wells located at 505 and 513 Mechanics Valley Road.

The results of the June 14, 2011 offsite potable well sample laboratory analyses identified no detectible concentrations of Volatile Organic Compounds (VOCs) were detected in the sample collected from 487 Mechanics Valley Road. No detectible concentrations of VOCs with the exception of MTBE were detected in samples collected from 493 (3.43 micrograms per liter (µg/L)), 505 (89.8 µg/L), and 513 Mechanics Valley Road (82.2 µg/L). Based on the sample results, GAC filtration systems were installed at the 505 and 513 Mechanics Valley Road properties on Tuesday, July 5, 2011. Subsequent sampling of these potable wells on July 12, 2011 indicated effluent samples with no detectable VOCs concentrations.

Follow up samples were also collected from the 487 and 493 Mechanics Valley Road properties on July 12, 2011. No detectible concentrations of VOCs with the exception of MTBE were detected in the sample collected from the 493 Mechanics Valley Road property (3.8 µg/L). BTEX (11.2 µg/L) and MTBE (4.1 µg/L) were detected in the follow up sample collected from the 487 Mechanics Valley Road property. None of the BTEX or MTBE concentrations detected during the July 12, 2011 sampling event was greater than their respective MDE Cleanup Standards for Type I and Type II Aquifers.

The results of the June 29, 2011 offsite potable well sample laboratory analyses identified no detectible concentrations of VOCs with the exception of MTBE in samples collected from 463 (0.71 µg/L) and 475 Mechanics Valley Road (1.7 µg/L). None of the MTBE concentrations detected in samples collected during the June 29, 2011 sampling event was greater than the MDE Cleanup Standards for Type I and Type II Aquifers. No VOCs were detected in the sample collected from 10 Montgomery Drive.

This work is discussed in greater detail in the Emergency Subsurface Environmental Investigation Report, prepared by AEC and dated July 19, 2011.

Also pursuant to the MDE OCP Report of Observations dated June 14, 2011, AEC installed six groundwater recovery and five groundwater monitoring wells between July 14 and 19, 2011. This investigation included the collection of soil samples from the borings in order to delineate the extent of hydrocarbon impact. The results of the soil sample analysis have not yet been completed and will be forwarded to the MDE under separate cover. The wells were completed to depths ranging from 24 to 26 feet bgs. The wells were constructed using 4-inch outside diameter (OD) poly vinyl chloride (PVC) screen and riser. The wells were developed using surge-block and over-pumping techniques between July 21 and July 22, 2011. Groundwater sampling or a well head elevation survey of these new wells and the existing wells has not yet been completed. A map illustrating the recovery and monitoring well locations is included as Figure 2 in Appendix A.

The new recovery and monitoring wells have been gauged daily since installation. Static groundwater was measured at depths within the temporary piezometers ranging from approximately 11.54 feet bgs in RW-5 to 14.38 feet bgs in MW-6. The maximum

measurable LPH thicknesses were detected in the following wells: MW-3 at a thickness of 1.75 feet on June 13, 2011; RW-1 at a thickness of 0.09 feet on July 20, 2011; and, RW-2 at a thickness of 0.30 feet on July 16, 2011. LPH sheen was observed in RW-3 on July 16, 2011. All of the other wells did not contain LPH during any of the gauging events.

AEC has conducted EFR operations via a vac-truck since June 13, 2011. The EFR is conducted using a "stinger" tube which is lowered into the wells to a depth of approximately two-feet below the static water level. The stinger tube is then sealed at the well head with a rubber Fernco boot to allow for both fluid and vapor extraction. Between June 13 and July 18, 2011 the vac-truck EFR operations were conducted on MW-3. As the recovery wells became operational between July 16 and July 19, 2011, they were added to the EFR program via a piping manifold. The vac-truck EFR operation is conducted daily for four hours. As of July 22, 2011, an estimated total of 37,538 gallons of fluid have been extracted from the Site. 701 gallons of this material is estimated to be LPH.

1.3 Site Topography

According to the United States Geological Survey (USGS) 7.5-Minute Series North East, MD Topographic Quadrangle, the Site elevation is approximately 70 feet above mean sea level (msl). Surface drainage at the Site is generally to the west towards North East Creek, a tributary of the North East River, located approximately 1,400 feet west of the Site at its closest point. The North East River drains into the Chesapeake Bay. No surface water bodies are present on the Site. The site area topography is illustrated on Figure 1 in Appendix A.

2.0 CONCEPTUAL MODEL

2.1 Geology and Hydrology

According to the Maryland Geological Survey's Geologic Map of Maryland (1968); the Site is located in the Atlantic Coastal Plain physiographic province, which is situated east of the fall line that separates the unconsolidated sediments of the Atlantic Coastal Plain province from the metamorphic units of the Piedmont. According to the map, the Site is underlain by Quaternary (Pleistocene to present) Lowland Deposits. This formation consists of irregularly distributed beds of sand, gravel, sandy clay, and clay. The sandy components are medium- to coarse-grained quartz sand with cobbles and boulders near the base. Most beds are lenticular and change rapidly in character over short distances. The formation commonly contains reworked Eocene glauconite. The finer grained materials consist of varicolored silts and clays and brown to dark gray lignitic silty clay.

Based on a review of the boring logs for all subsurface borings completed on the Site, the soils generally consist of inter-bedded sand, silt, clay and gravel deposits. Specifically, lithologic variations of clayey sand and sandy clay are found to depths between 1 and 20 feet bgs. In most of the borings a sand or sand/gravel component is found in the assorted variations throughout. The soil was observed to be moist in some of the borings at depths as shallow as 6.5 feet bgs. Saturated soil was observed in some of the borings below 9.5 feet bgs.

The groundwater gauging event performed on July 1, 2011, is used as representative groundwater data for this report. Depth to groundwater ranged from 6.96 feet bgs in B-23 to 14.62 feet bgs in B-12. Depth to groundwater in the on-Site monitoring wells ranged from 9.76 feet bgs in MW-1 to 12.88 feet bgs in MW-3. These groundwater depths were compared to top of casing elevations with an arbitrary datum of 100 feet. Groundwater elevations in the on-Site monitoring wells ranged from 84.80 feet in MW-1 to 85.07 feet in MW-3.

A groundwater gradient map was developed using the July 1, 2011 data and is provided as Figure 5 in Appendix A. Groundwater flow is shown to be generally towards the west. The hydraulic gradient (change in head per unit distance (*dh/dl*)) between MW-3 and MW-1 was 0.002 feet per foot during this monitoring event. It should be noted that a well head elevation survey for the new recovery and monitoring wells has not yet been completed. Once this survey is performed, an updated groundwater gradient map will be provided to the MDE under separate cover.

2.2 Liquid-Phase Hydrocarbons

During the July 1, 2011 gauging event, measurable LPH was present in well MW-3 (0.29 feet) and temporary piezometers B-6 (0.07 feet), B-10 (0.59 feet), B-13 (0.11 feet) and B-22 (3.31 feet). Historically, LPH has been detected in the following wells: B-2 at thicknesses ranging from 0.00 to 0.81 feet; B-6 at thicknesses ranging from a sheen to

1.20 feet; B-9 at thicknesses ranging from 0.00 to 1.40 feet; B-10 at thicknesses ranging from 0.04 to 1.29 feet; B-13 at thicknesses ranging from 0.01 feet to 0.55 feet; B-22 at thicknesses ranging from a sheen to 6.91 feet; MW-3 at thicknesses ranging from 0.01 to 1.75 feet; RW-1 at thicknesses ranging from 0.00 to 0.09 feet; and, RW-2 at thicknesses ranging from a sheen to 0.30 feet. In addition LPH sheen has been observed in B-1, B-8, B-15 and RW-3. All of the other temporary piezometers and wells did not contain LPH during any of the gauging events. Historical Groundwater Elevation Data from the piezometers and monitoring wells are summarized in Tables 1 and 2, respectively in Appendix B.

Based on this data it is suspected that LPH impact consists of an approximately 6,500-square foot, oblong-shaped plume which extends in a southeast to northwest direction from south of the eastern portion of the dispenser islands to the eastern portion of the UST field; and in an east-west direction from the eastern end of the dispenser islands to the central portion of the dispenser islands. Figure 6 in Appendix A, presents an LPH Distribution Map which illustrates the maximum LPH thicknesses during all of the gauging events and the suspected limits of LPH.

2.3 Dissolved-Phase Hydrocarbons

AEC's June 22 through 24, 2011 sampling of the temporary piezometer network indicates BTEX concentrations ranging from 32 µg/L (B-17) to 24,700 µg/L (B-23); TPH GRO concentrations ranging from below detection limits (BDL) (B-7, B-8, B-11, B-12, B-17, B-18 and B-20) to 36 milligram per liter (mg/L) (B-5); and TPH DRO concentrations ranging from BDL (B-4, B-7, B-8, B-11, B-12, B-16, B-17, B-18 and B-20) to 8 mg/L (B-14). MTBE concentrations were found in two of the 17 samples; 235 µg/L in B-17 and 220 µg/L in B-20. It should be noted that the formulation of the released product did not contain MTBE. AEC's June 8, 2011 sampling of MW-1 and MW-2 indicates all analyzed VOCs were BDL. The results of the groundwater sample laboratory analyses are summarized on the Groundwater Quality Map included as Figure 7 in Appendix A and in Table 3 included in Appendix B.

Based on this data DPH impact from the recent release is estimated to consist of an oval-shaped plume encompassing the eastern and central portions of the Site. The down gradient extent of the DPH plume is delineated by wells MW-1 and MW-2 which both were BDL for VOCs. The northern (side gradient) extent of the DPH plume has been substantially delineated as determined by piezometers B-11 (76.9 µg/L total BTEX) and B-12 (BDL for total BTEX). The southern (side gradient) extent of the DPH plume has not yet been fully delineated but is thought to not extend further than boring B-24 (no groundwater sample but soil analysis results were BDL for all VOCs). The up gradient extent of the DPH plume, while not expected to extend significantly away from the source area, has also not been fully delineated in areas immediately east of the dispenser islands.

2.3 Adsorbed-Phase Hydrocarbons

AEC's June 2011 soil sampling indicates BTEX concentrations ranging from BDL (B-3-7', B-7-20', B-8-13', B-12-20', B-17-20', B-18-7', B-20-20', B-21-20', B-22-7', B-23-6' and B-24-14') to 53,420 µg/kg (B-10-13'). TPH GRO concentrations ranged from BDL (B-2-7', B-3-7', B-4-12', B-5-8', B-7-20', B-8-13', B-11-12', B-12-20', B-17-20', B-20-20', B-21-20', B-22-7', B-23-6' and B-24-14') to 240 milligrams per kilogram (mg/kg) (B-9-7'). TPH DRO concentrations ranged from BDL (B-1-9', B-2-7', B-3-7', B-4-12', B-5-8', B-7-20', B-8-13', B-11-12', B-12-20', B-14-7', B-16-7', B-17-20', B-18-7', B-19-8', B-20-20', B-21-20', B-22-7', B-23-6' and B-24-14') to 740 mg/kg (B-15-11'). MTBE was not detected in any of the soil samples submitted for laboratory analysis at a concentration exceeding its laboratory detection limit. The results of the soil sample laboratory analyses are summarized on the Soil Quality Map, included as Figure 8 in Appendix A, and in Table 4 included in Appendix B.

Based on this data absorbed phase hydrocarbon (APH) impact distribution is similar to the LPH distribution which extends in a southeast to northwest direction from south of the eastern portion of the dispenser islands to the eastern portion of the UST field; and in an east-west direction from the eastern end of the dispenser islands to the central portion of the dispenser islands. As determined by a review of the boring logs (odor, staining and elevated PID readings), the vertical extent of the significant APH impact is predominantly between 5- and 12-feet bgs.

2.4 Summary

Figures 9, 10 and 11 (Appendix A), Trace of Lithologic Cross Sections, Lithologic Cross Section A-A', and Lithologic Cross Section B-B', respectively, illustrate the subsurface conditions in the area of the release. As shown in the cross sections several semi-continuous layers of predominately coarse grained material underlie the dispenser area. These materials consist of mostly fine to medium grained sand with varying amounts of silt and clay. These layers may have served as migration pathways for the lateral movement of LPH in side and down gradient directions. Zones of photoionization device (PID) readings which exceed 100 parts per million (ppm) are shown on the cross sections (red rectangles). In the source area, which is thought to be in the vicinity of the eastern most dispensers, the elevated PID readings mostly correspond to these predominately coarse grained materials.

3.0 RISK DETERMINATION SUMMARY

3.1 Introduction

The MDE OCP produced the MEAT for LUSTs document (2003) to provide guidance in the event of a release of a hazardous substance from regulated UST systems. According to the MEAT document, the OCP requires the potential risk be measured at every facility that has a reported release in order to establish cleanup goals and to determine if remediation is necessary. The OCP evaluates risk by a "Seven Risk Factor" process. The seven factors that require consideration include LPH, Current and Future Use of Impacted Groundwater, Migration of Contamination, Human Exposure, Environmental Ecological Exposure, Impact to Utilities and Other Buried Services, and Other Sensitive Receptors. The following sections of this report state each of the seven risk factors, and presents AEC's evaluation of each factor as it pertains to the Site.

3.2 Liquid Phase Hydrocarbons

"*LPH refers to a regulated substance that is present as a non-aqueous phase liquid. When LPH is found on-site, the liquid product must be removed to the maximum extent possible. OCP has determined this to be sheen. (MEAT for LUSTs, 2003).*"

Historically, LPH has been detected in the following wells: B-2 at thicknesses ranging from 0.00 to 0.81 feet; B-6 at thicknesses ranging from a sheen to 1.20 feet; B-9 at thicknesses ranging from 0.00 to 1.40 feet; B-10 at thicknesses ranging from 0.04 to 1.29 feet; B-13 at thicknesses ranging from 0.01 feet to 0.55 feet; B-22 at thicknesses ranging from a sheen to 6.91 feet; MW-3 at thicknesses ranging from 0.01 to 1.75 feet; RW-1 at thicknesses ranging from 0.00 to 0.09 feet; and, RW-2 at thicknesses ranging from a sheen to 0.30 feet. In addition LPH sheen has been observed in B-1, B-8, B-15 and RW-3.

Based on this data it is suspected that LPH impact consists of an approximately 6,500-square foot, oblong-shaped plume which extends in a southeast to northwest direction from south of the eastern portion of the dispenser islands to the eastern portion of the UST field; and in an east-west direction from the eastern end of the dispenser islands to the central portion of the dispenser islands. Figure 6 in Appendix A, presents an LPH Distribution Map which illustrates the maximum LPH thicknesses during all of the gauging events and the suspected limits of LPH.

3.3 Current and Future Use of Impacted Groundwater

"If the groundwater impacted by the release is used for direct consumption within a half mile of the site or the site is located within an approved wellhead protection zone, a site assessment and CAP must be designed. Other uses of groundwater that would warrant remediation include industrial, agricultural, and surface water augmentation. If known, future use of the groundwater must be taken into consideration. If site-specific future

use is unsure, regional trends must be considered. Generally, if future use is not clear, a more conservative approach to cleanup is applied (MEAT for LUSTs, 2003)."

A potable well survey was completed for the Site and vicinity in 2007. The survey identified 15 potable wells which are down gradient of the site based on topography and groundwater elevation measurements. One well was also identified immediately up gradient of the Site directly across Montgomery Drive. AEC is currently updating this survey and the results will be forwarded to the MDE under separate cover. AEC's 2007 survey is included in Appendix C. The recent testing results for some of the potable wells are shown on Table 5 in Appendix B. The testing locations (street addresses) are illustrated on Figure 3 in Appendix A.

3.4 Migration of Contamination

"The ability of contamination to migrate off-site or to migrate to a receptor is a critical measure. If it can be demonstrated that the contamination is stationary and site conditions restrict the potential for migration, the need for cleanup may be reduced (MEAT for LUSTs, 2003)."

The subsurface investigations at the Site have indicated that petroleum constituents may have migrated away from the release point across the northern Site boundary. This is demonstrated by the existence of dissolved phase petroleum constituents detected in several piezometers located near the northern Site boundary. It should be noted that the southern extent of the dissolved phase plume has not yet been fully delineated but is thought to not extend further than boring B-24 (no groundwater sample but soil analysis results were BDL for all VOCs). The up gradient extent of the dissolved phase plume, while not expected to extend significantly away from the source area, has also not been fully delineated in areas immediately east of the dispenser islands.

3.5 Human Exposure

"Any exposure to the public warrants site corrective action. There are several exposure pathways that must be considered. These pathways include but are not limited to inhalation, ingestion, and dermal contact (MEAT for LUSTs, 2003)."

Direct dermal contact, inhalation, and/or the ingestion of petroleum impacted groundwater is possible as on- and off-Site potable wells exist in the area. Carbon point of entry treatment (POET) systems were installed at the 505 and 513 Mechanics Valley Road properties on Tuesday, July 5, 2011. These systems consist of a sediment pre-filter, three coconut shell carbon filters, and associated plumbing materials to make the systems operational. Surface drainage at the Site is generally to the west towards North East Creek, a tributary of the North East River, located approximately 1,400 feet west of the Site at its closest point. The tributary of the North East River is not expected to be impacted by the Site's release.

Dermal contact and/or ingestion of impacted soil is unlikely as the entire Site area is paved with asphalt, gravel or concrete and soil impact is greatest at or near the water

table which ranges from approximately 7 to 14 feet bgs. With the exception of construction excavation work, no complete dermal contact, inhalation, and/or ingestion of impacted soil exposure pathway is anticipated.

Vapor inhalation risk to off-Site structures is not thought to be a concern based on the lack of significant dissolved phase VOCs down gradient of the Site. Vapor inhalation risk to the Site building has not been assessed. However, vapor inhalation risk to the Site building is possible based on the identification of LPH and elevated DPH levels within proximity to the northeastern side of the structure.

3.6 Environmental Ecological Exposure

"The need to protect the natural resources of the State is mandated by Maryland law. If there is exposure to animal or plant life from the petroleum release or the degradation of a natural resource, corrective action is warranted (MEAT for LUSTs, 2003)."

AEC did not observe any signs of staining or vegetative stress in the grass-covered areas surrounding the Site or off-site properties. The most proximal natural surface body of water to the Site, North East Creek, a tributary of the North East River, located approximately 1,400 feet west of the Site at its closest point, is not expected to be impacted by the Site's release. AEC does not consider this release to represent a threat to animals or plant life in the vicinity of the Site.

3.7 Impact to Utilities and Other Buried Services

"The responsible party must correct adverse effects to utilities. Utility materials have been known to degrade from contact with petroleum products. Utilities may also act as conduits that lead to the migration of contamination. Migration along utilities may cause vapor impacts or other issues at nearby structures (MEAT for LUSTs, 2003)."

Electric service is provided to the Site by Delmarva Power. Water is supplied by a potable well (Permit No. CE-94-3354) located to the west of the Site building. Storm water flows to a retention pond located on the northwest portion of the Site and is channeled into the Maryland State Highway Administration (SHA) storm water system along Pulaski Highway. Municipal sewer service is provided to the Site and vicinity by the Cecil County Department of Public Works. The sanitary sewer line that services the Site runs from the middle of Montgomery Drive to the northeastern portion of the Site building. The Montgomery Drive manhole depth is 7.53 feet bgs. One sanitary cleanout is located along this line. The depth of this cleanout is 5.15 feet bgs. Additionally, a grease interceptor and two associated cleanouts are located immediately north of the Site building. The depth of the bottom of the grease interceptor is 6.12 feet bgs. The grease interceptor is connected to the sanitary sewer line. A Site Utilities Map is included as Figure 12 in Appendix A.

Depth to groundwater at the Site in the vicinity of most of the subsurface utilities is approximately 11 to 13 feet bgs. Depth to groundwater in B-23 near the sanitary sewer service is approximately 6 to 7 feet bgs. The sanitary sewer service invert is

approximately 5 to 6 feet bgs. The shallower water table in this area may be related to either lithology creating a perched condition or leakage from the sewer line. Based on this data utility trenches on the Site are not expected to be affected by the petroleum impact.

3.8 Other Sensitive Receptors

"Sensitive receptors such as surface water, historic structures, and subways are an indication that a site may warrant corrective action (MEAT for LUSTs, 2003)."

Natural surface bodies of water, historic structures, and subways are not located at the Site; as such, these receptors are not a concern. Additional sensitive receptors in the vicinity of the Site location were not observed during the site assessment. Based on the lack of receptors in the site vicinity that the UST release could possibly have affected, the release does not appear to pose a risk to other sensitive receptors.

3.9 Summary

Based on the results from the recent subsurface investigation and monitoring efforts and the evaluation of the seven risk factors, AEC has established that risk exists for the following MDE Risk Factors:

- Liquid Phase Hydrocarbons
- Current and Future Use of Impacted Groundwater
- Migration of Contamination
- Human Exposure

AEC has not identified any risk associated with these remaining MDE Risk Factors:

- Environmental Ecological Exposure
- Impact to Utilities and Other Buried Services
- Other Sensitive Receptors

The existence of LPH will necessitate the removal of this material. The existence of DPH in context of the on- and off-Site potable wells will necessitate the removal of this material. The proposed clean-up technology presented below will also address DPH and APH impact as part of the LPH recovery efforts. Once the LPH is removed in the source area it may be necessary to perform secondary remediation to address DPH and recalcitrant APH. If the secondary remediation is necessary, pilot studies will be conducted and this CAP will be amended.

4.0 EFR PILOT STUDY

In order to determine the radius of influence for individual EFR extraction points, abbreviated EFR pilot studies were conducted on recovery wells RW-2 and RW-6 on July 21 and 22, 2011, respectively. The RW-2 study was conducted for 85 minutes and the RW-6 study was conducted for 62 minutes. The EFR studies were accomplished using a vac-truck as the vacuum application source. A stinger tube extending to a depth of approximately two feet below the static groundwater level was placed in each extraction well. The wellhead was then sealed with a rubber boot to eliminate short-circuiting.

During the RW-2 pilot study the following wells/piezometers were monitored: B-10, B-13, B-4, B-8, RW-1 and RW-5. During the RW-6 pilot study the following wells/piezometers were monitored: MW-3, B-2, B-3 and B-4. Prior to and during the pilot studies groundwater levels were measured in each well/piezometers using an oil/water interface probe. Also measured during all of the studies were vacuum readings. The vacuum readings were collected using magnehelic differential vacuum gauges attached to the well heads. A summary of these measurements are provided in Appendix D.

The EFR studies were initiated with vacuums of 100-inches of water applied to the extraction wells (RW-2 and RW-6). The initial vacuums applied to each well remained relatively stable throughout the duration of the studies. Each respective vacuum reading represents the maximum, non-diluted, applied vacuum to the extraction wells.

Vacuum influence readings were recorded at minimum 5-minute intervals from the vacuum monitoring points throughout each study. Field observations indicated that the vacuum influences in the observation wells generally stabilized approximately 30 minutes after the test was initiated with minor fluctuations.

Recorded vacuum influence occurred in each of the wells/piezometers during the pilot studies. Vacuum influence observations occurred in wells/piezometers located at distances ranging from 20 to 25 feet from the extraction wells used for the studies. The greatest recorded vacuum influence in each observation well ranged from 18-inches of water observed in MW-3 during the RW-6 pilot study to 10-inches of water observed in B-10 during the RW-2 pilot study. Vacuum influence versus distance for each pilot study is presented graphically in figures presented in Appendix D. As the figures demonstrate, an effective vacuum influence of 0.1-inches of water may be expected at a distance of approximately 20 feet from the recovery wells with 100-inches of water vacuum applied.

Air velocity was not measured during the pilot studies due to equipment deficiencies associated with the vac-truck. Based on previous experience with performing this type of study with a vac-truck an air flow rate of between 50 and 100 cubic feet per minute (cfm) is expected.

Gauging of the wells/piezometers prior to initiation of the pilot studies and at regular intervals throughout the study indicate that the groundwater elevation decreased in all of the surrounding wells/piezometers. Groundwater level decreases ranged from 0.48 feet in

RW-1 (located 19 feet from the extraction well) during the RW-2 pilot study to 0.35 feet in B-4 (located 20 feet from the extraction well) during the RW-6 pilot study. At the conclusion of the RW-2 pilot study, approximately 300 gallons of groundwater had been recovered for an average recovery rate of 3.5 gallons per minute (gpm).

Based on the pilot study vacuum influence data, a radius of influence (ROI) of 20 feet has been developed. This ROI represents the anticipated distance from an extraction point where at least 0.1-inches of water column is applied. The 0.1-inch of water column vacuum has been determined through extensive studies to be a reasonable value concerning effective ROI for EFR and soil vapor extraction.

5.0 PLANNED REMEDIATION ACTIVITIES

5.1 Remediation Plan Summary

The remediation approach proposed in this CAP is based upon data collected from the EFR pilot studies performed in July 2011, as well as site characterization investigations, review of historical well gauging/sampling data, and vac-truck EFR performance characteristics. Although the EFR pilot studies were instrumental in determining the feasibility of using this technology at the Site, it is recommended that a 4- to 8-hour pilot study be conducted using an EFR skid designed for such studies. The primary reason for this recommendation is that airflow measurements were not collected during the abbreviated studies due to deficiencies in the vac-truck effluent stack. This is a critical design parameter for sizing the recovery and treatment equipment. The design presented in the proceeding sections assumes an airflow rate of 50 cfm per extraction point. This design parameter will need to be verified during future studies and the equipment sizing amended as necessary.

Based on the presence of LPH, in-situ chemical oxidation (ISCO), in-situ bioremediation, and air-sparging will not be effective means of remediation at this time. Based upon feasibility and the past effectiveness of the vac-truck EFR work, the recommended remedial approach consists of using dual-phase EFR technology to substantially remediate both soil and groundwater. Once the LPH is removed and dissolved phase levels in the source area are reduced it may be necessary to perform secondary remediation. This may entail using one of the technologies mentioned above. If the secondary remediation is necessary, pilot studies will be conducted and this CAP will be amended.

The results of the EFR pilot study performed from the recovery points indicate that EFR would effectively remove LPH, DPH and APH from the subsurface. By mitigating the hydrocarbon presence and achieving hydraulic control over the remediation zone, the future impact to downgradient receptors should be reduced. Secondarily, the significant vacuum influence observed during the EFR test, as well as the recorded air flow and expected mass hydrocarbon recovery rates, indicate that the application of vapor extraction via high vacuum extraction should: directly withdraw residual VPH from the soil pore spaces; mobilize sorbed phase hydrocarbons within the soil pore spaces; potentially accelerate aerobic degradation by delivering oxygen into the vadose and artificial vadose zones thereby stimulating indigenous microbiological hydrocarbon degradation in these zones; and, potentially mitigate dissolved phase hydrocarbons in groundwater through volatilization where the groundwater is not directly recovered.

5.2 Target Cleanup Zone

The dual-phase EFR system will address LPH, DPH and APH impacted soil within the defined remediation zone illustrated on Figure 13 in Appendix A. The boundaries of this zone were developed using the monitoring and temporary piezometers which currently

and historically contained LPH. The extent of the EFR application footprint dimensions is approximately 6,500-square feet.

To establish hydraulic control of the remediation zone in relation to the capture zone dimensions, the addition of four EFR wells will be required. This is in addition to the four existing recovery wells (RW-1 RW-3, RW-4 and RW-6). The existing wells and the proposed EFR wells are identified on Figure 13 in Appendix A. Additional EFR wells will be installed if cleanup criteria are not achieved or, if during well installation procedures, additional LPH areas are identified.

6.0 REMEDIATION SYSTEM DESIGN

6.1 Remediation System Design Summary

The proposed remediation system is designed to recover APH from subsurface soils and remove DPH and LPH from extracted groundwater via vertical recovery wells. By depressing the groundwater table, additional soils are exposed to soil vapor extraction. By using EFR, both liquid and vapor phase recovery should be maximized. The remediation system will be designed to treat recovered groundwater at a rate of 50 gpm and vapors at a rate of 500 cfm. Pilot studies have indicated that a recovery well flow rate of 3.5 gpm is adequate in depressing the water table for effective EFR operation. The proposed number of recovery wells is eight which equates to a system flow rate of 28 gpm which is within the capacity of the system design flow rates.

System equipment will be stationed to the east of the Site building at the southeastern corner of the Site property (equipment compound). The system control panel and electrical panel will be mounted on the outside of the system building. The interior of the system building will house a liquid ring dual phase extraction pump, phase separation tanks, an integrated oil-water separator and air-stripper for LPH and dissolved phase hydrocarbon removal, a poly sump, two fluid transfer pumps, two activated carbon canisters connected in series for final groundwater treatment, and a flow totalizer to record total volume of groundwater treated. The equipment and wiring in the treatment room is rated for explosive environments. The exterior of the equipment compound will contain a catalytic oxidation unit for vapor treatment, and two activated carbon canisters connected in series for contingency vapor treatment.

Total fluids and soil vapors will be extracted from the eight vertical extraction wells by a skid-mounted liquid ring vacuum pump. Extracted fluids and vapors from the recovery wells will pass through a settling tank then primary and secondary vapor knock-out tanks for separation of recovered liquid and vapor phases. Separated liquids will be directed to a poly transfer sump via a transfer pump then to an oil-water separator/air stripper for groundwater and LPH separation. The LPH will be directed to a storage tank for collection, and the stripped water will be directed through two carbon vessels connected in series for final polishing prior to discharge. Should the air pressure from the stripper blower fall below a set-point (i.e. the blower is not operating), or should a high liquid level condition occur, an electrical relay into the system control panel will read an alarm condition and will shut power off for all system components and indicate an alarm condition.

The transfer sump is equipped with a high level alarm switch and a level differential control switch. When the water level in the sump reaches a set level, the level differential control switch becomes activated and signals the control panel to actuate the transfer pump. The air stream from the liquid ring pump will be routed for treatment by a catalytic oxidation unit for off-gas control. A fail safe control device will be installed within the catalytic oxidation unit so that should an operating fault occur within the oxidation unit, the system control panel will disable the recovery and treatment process.

This will ensure that untreated vapors do not escape into the atmosphere. The air stripper off-gases will be discharged directly into the air. During remote startup procedures the vapor stream will be temporarily directed through the vapor phase carbon vessels. Items concerning discharge streams and allowable emissions are discussed under the permitting section of this CAP. System drawings illustrating the piping and instrumentation are supplied as Figure 14 in Appendix A.

6.2 Equipment Information and Specifications

The following section provides information about each major component of the remedial system. Equipment summaries are supplied that detail the equipment functions, operations, and the suggested supplier and/or manufacturer information. Equipment manufacturer and model numbers are supplied only as reference. Equipment of equal operations and capacities manufactured by others may be substituted.

6.3 System Control Panel & Logic Components

The control panel contains the logic and drive components for the remedial equipment. The control panel will control operation of the transfer pumps, the liquid ring pump, and the air stripper blower, including motor starters. Each motor starter will be equipped with thermal protection. Logic components will be required as follows:

1) Transfer pump on/off liquid differential float switches will be installed within the knock-out tanks, poly transfer sump, and oil-water separator/air stripper sump. Each transfer pump will be able to be controlled by hand/off/auto switches at the control panel.

2) High level alarm floats will be installed within the knock-out tanks, oil-water separator, poly transfer sump, LPH holding tank, and air stripper sump. When a high alarm condition occurs, the control panel will disable operations to the liquid ring pump and the transfer pumps.

3) The air stripper will be equipped by the manufacturer with either a low air flow switch and/or a low pressure switch. When an alarm condition signifying the air stripper air flow conditions are not being met, the control panel will disable the liquid ring and transfer pumps.

4) The common line serving the liquid phase carbon vessel series will be equipped with a high pressure switch. The set point of the high pressure switch will be dependent upon the design pressure allowed by the carbon vessels installed. When a high pressure condition occurs at the carbon treatment, the control panel will disable the system.

5) The knock-out tanks will be equipped with a low level float switch. The low level float switch ensures that an adequate seal-water supply is available for the liquid ring pump. Should a low level alarm occur, the control panel will disable the liquid ring pump.

6) The catalytic oxidation unit will be provided with an independent control panel. The independent control panel for the oxidation unit will contain alarm output terminals signifying low/high air flow conditions and operating temperature faults. Wiring from the oxidation unit to the control panel will be installed so that the system control panel may disable the liquid ring pump should the oxidation unit shut down.

The controls will also include a telemetry system with 8 analog inputs and 4 digital outputs. The system will have an integrated data logger and a surge suppression system. The telemetry controls will be capable of remote startup and shutdown operations and real time operations monitoring.

6.4 Liquid Ring Vacuum/Knock-Out Tanks and Transfer Pump

Dual phase extraction (liquid and vapor) from the vertical wells will be performed using a Model TRSC 100-700 Travaini Liquid Ring Vacuum Pump. The vacuum pump, knock-out tanks and transfer pump are package supplied and skid mounted. The liquid ring pump is equipped with a 40 HP, 230/460/3/60 Class I, Group D, explosion proof motor. The liquid ring pump should be capable of providing an air flow rate of 500 acfm at up to 20 inches of mercury applied vacuum.

6.5 Oil-Water Separator and Low Profile Air Stripper

The integrated oil-water separator/low profile air stripper is manufactured by MKE Inc. (model SA50HE-2 Stripperator). Influent from the air/water separator (knock-out tank) is evacuated via a transfer pump and flows into the inlet of the oil-water separator through a diffusion baffle. The influent then passes through a cross corrugated coalescing media and product skimming weir. A rotary pipe skimmer collects separated floating product which gravity feeds into the storage tank.

Separated water flows to an effluent chamber of the separator, and then by gravity to the low profile type air stripper portion of the system which is equipped with a regenerative blower. The chamber fills to a set level before flowing through a sheen baffle and out of the separator. The system is equipped with a high level alarm switch. The flow rate of the integrated oil-water separator-low profile air stripper is rated for a flow rate of 50 gpm. The oil-water separator portion of the system will be vented.

Groundwater is evacuated from the air stripper sump by a system transfer pump. The air stripper will be equipped with a low flow pressure switch to shut-down the system in the event of stripper blower malfunction.

6.6 Groundwater Carbon Polishing

The air stripper transfer pump evacuates treated groundwater collected in the air stripper sump through the carbon vessels for final treatment before discharge. Granular activated carbon vessels will be connected in a series of two for final polishing prior to

discharge. The carbon treatment line will be capable of treating 50 gpm. A high pressure switch will be installed.

6.7 Catalytic Oxidation Unit

The catalytic oxidation unit will be a MKE Model 500E electric oxidizer. The unit has a design flow rate of 500 cfm. The thermal oxidation unit installed at the site will have the following options: skid mounted; equipped with an independent control panel with alarm output terminals to be wired to the system control panel; a flame arrestor; and, a minimum stack height of 12 feet above ground surface. The unit will be supplied with an air-water separator knock-out tank to minimize condensed fluids from entering the burner or vapor phase carbon canisters. The vapor treatment line will also include two vapor phase carbon canisters (model VF-400) for odor control and vapor capture when the oxidizer is off and during remote restart conditions.

6.8 Remediation System Compound

The remediation equipment will be stored within an 8.5 foot wide by 16 foot long by 9 foot high fully insulated aluminum/steel enclosure. The enclosure will be rated for explosive environments (XP). Lockable access ways will be installed on the enclosure. The oxidizer and vapor phase carbon canisters will be stored outside of the enclosure. A privacy fence will be erected surrounding the remedial compound to prevent access and tampering by unauthorized individuals and to provide aesthetics.

6.9 Ancillary Items

Other items to be installed with the remediation system include electric service, electrical components, plumbing, and valves. The remediation system will be supplied with an independent 400 amp, three phase electric service/panel and meter. The interior of the enclosure will be equipped with an XP heater and thermostat, an XP ventilation fan, a XP lighting fixture, and XP switches or receptacles for each motor. XP wiring will be within rigid conduit/seal-offs, or as applicable according to local fire codes. All motors/pump equipment will be installed so that the equipment may be easily pulled for servicing (i.e. flexible hanger couplings).

The recovery lines from the wells will be manifolded into a common line. All plumbing will be performed so that 'quick connect' type fittings are installed prior to and after each equipment item. Piping will be standard schedule 40 PVC. Elbows and couplings will be pressure type fittings.

6.10 Subsurface Piping &Trenching

Subsurface recovery piping will be installed to eight recovery wells shown on Figure 15 in Appendix A. Road grade vaults will be installed over each recovery well. The depth of the trenching will be 35 inches. Two-inch schedule 40 PVC piping will be inserted into each recovery well (stinger tube) and connected to the well head with a sanitary seal. A

flow adjustment valve will be attached to each stinger tube inside the well vault. The sanitary seal will also have an ambient relief fitting with a valve inside the well vault. The stinger tube depths will be adjustable and are expected to be set at approximately 2- to 4-feet below static water levels. Two-inch schedule 40 PVC recovery piping will be used to connect each well head to 4-inch diameter schedule 40 PVC header lines. It is anticipated that two to four recovery wells will be connected to each of two header lines. The two header lines will be connected to a 6-inch schedule 40 PVC trunk line. All underground piping will be emplaced within the trenching with a minimum of 30 inches of cover. All piping connections will be accomplished using primed and glued pressure couplings. The piping will be set in a bed of 10 inches of pea gravel (4 inches below and 6 inches above). Native soils may be backfilled into the trench in six to eight inch lifts and compacted. The remainder of the trench will be completed by placing three to four inches of stone as sub base and four inches of finished asphalt to the surface. Trenching and well vault details are shown on Figure 16 in Appendix A.

7.0 SAMPLING AND MAINTENANCE PROGRAM

7.1 Groundwater Monitoring Procedures

Quarterly groundwater monitoring will be conducted to evaluate the effectiveness of the remediation activities. The groundwater samples will be collected from the monitoring/recovery wells and analyzed according to EPA protocols. Groundwater samples will be collected from the wells by first gauging and purging at least three well volumes using a stainless steel bailer which will be cleaned prior to use in each well.

After purging, each well will be allowed to recharge for a period of at least one hour prior to sampling. The samples will be collected using a dedicated disposable sampling bailer. The samples will be transferred directly into the appropriate sample containers. The sample from each location will be placed in 40 milliliter glass jars with Teflon-lined septa and preserved with hydrochloric acid, and amber glass liter bottles, as appropriate. Once collected, the samples will be placed on ice in a cooler to await shipment to the laboratory.

All groundwater monitoring/recovery wells and tank pit observation wells which do not contain LPH will be analyzed for VOCs including fuel oxygenates per EPA Analytical Method 8260, as well as TPH DRO and TPH GRO per EPA Analytical Method 8015B.

7.2 Operation and Maintenance Procedures

The treatment system will operate on a continual basis with the exception of shutdowns for equipment maintenance. Routine inspections of the remedial operations will be performed in order to ensure proper operation and to evaluate system effectiveness.

The system will be inspected daily for the first week of operation and weekly thereafter for the first month. The daily and weekly visits will be used to adjust and optimize the system operation. Following the first month and system optimization, monitoring of the Site and the remediation system will be conducted on a monthly basis. During Site visits the following activities will be performed:

- Gauge the monitoring well network with an interface probe to verify the presence/absence of LPH;

- Collect an airflow measurement and VPH concentration readings from the vapor control device influent and effluent streams using a calibrated PID to ensure proper operation;

- Verify that the dual-phase EFR system is operating properly;

    - Control panel inspection
    - Pump operations
    - Sump probes

  - Fail safe switch operation
  - Flow totalizer operation
  - All equipment serviced in accordance with manufacturer's specifications

- Record flow totalizer reading;

- Collect groundwater samples from the influent and effluent of the air stripper and the carbon vessels to be analyzed in accordance with applicable discharge permit requirements;

- Replace and interchange carbon canisters prior to hydrocarbon breakthrough, as required; and

- Remove LPH from storage tank, as necessary.

8.0 PERMITS, SUBMITTALS, AND SCHEDULING

8.1 Permitting

Construction and EFR activities will be performed in compliance with the appropriate operating permits required by the State of Maryland and Cecil County. Permits will be renewed as necessary, and additional permits will be obtained as required if additional remediation activities are proposed in the future. The following presents the anticipated permit requirements:

System Construction - All applicable building permits will be appropriated. Applicable permits may include building permits for the equipment shelter and fence, grading, trenching and sediment control permits, and electrical permits. All work will be performed by properly licensed State of Maryland contractors.

Surface Water Discharge - The groundwater will be treated and discharged to the Cecil County sanitary sewer located to the east of the Site. Prior to discharge the necessary approvals will be received from the Cecil County Department of Public Works. A Notice of Intent (NOI) to discharge will be submitted to the MDE in accordance with the MDE's current National Pollutant Discharge Elimination System (NPDES) modified General Discharge Permit (GDP). Results of NPDES permit required monitoring will be submitted to the MDE in quarterly Discharge Monitoring Reports (DMRs), as required.

Off-gas Vapor Emissions - Vapor emission point sources (catalytic oxidation unit and air stripper off-gas) will be operated in compliance with the MDE Air and Radiation Management Administration ARMA General Permit for SVE and Groundwater Air Strippers. Emissions from each point source will be held below the permit thresholds listed below:

- Parameter: Permit Limit
- Total VOC: 20 lbs/day
- Benzene: 0.02 lbs/hr

The vapor emission point sources will be periodically evaluated to determine whether the potential emissions warrant continued off-gas treatment via catalytic oxidation or through vapor phase granular activated carbon units prior to discharge to the atmosphere.

8.2 Submittals

AEC will receive, review and accept all environmental submittals (e.g., bills of lading, disposal manifests, etc) from other contractors. Within 30 days after off-site disposal of impacted, regulated material, the contractors will be required to submit copies of all

documentation, including but not limited to, bills of lading, materials shipping records, or waste manifests to AEC.

A construction schedule detailing the remedial action activities and 5-day notification to begin will be forwarded to the MDE prior to beginning the work. Within 30 days of completing the CAP activities for the Site, a CAP Implementation Report shall be prepared and submitted to the MDE for review and approval. At a minimum, each report will include a detailed description of the remedial activities performed; volume of liquids removed; maps depicting sampling locations, groundwater flow before, during, and subsequent to vacuum activities, analytical testing results; laboratory reports of analysis; and conclusions and recommendations.

Quarterly groundwater performance and confirmation sampling progress reports will be prepared for the Site. Groundwater gradient and groundwater quality maps, and post-treatment graphs showing groundwater concentration changes over time will be prepared for each VOC. Quarterly reports will be submitted to the MDE within 30 days of the receipt of the laboratory analytical results.

8.3 Scheduling

The following is the anticipated schedule for completion of the installation and startup of the CAP remedy (i.e., permanent EFR installation) using the current approach:

- Submittal of CAP – July 25, 2011.
- Complete performance of supplemental EFR pilot study - July 29, 2011
- Submittal of CAP addendum – August 5, 2011
- MDE completes review of CAP – September 5, 2011
- Complete EFR system installation – November 5, 2011

The elapsed time between CAP submittal and the completion of EFR system installation is approximately three months.
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APPENDIX A

FIGURES

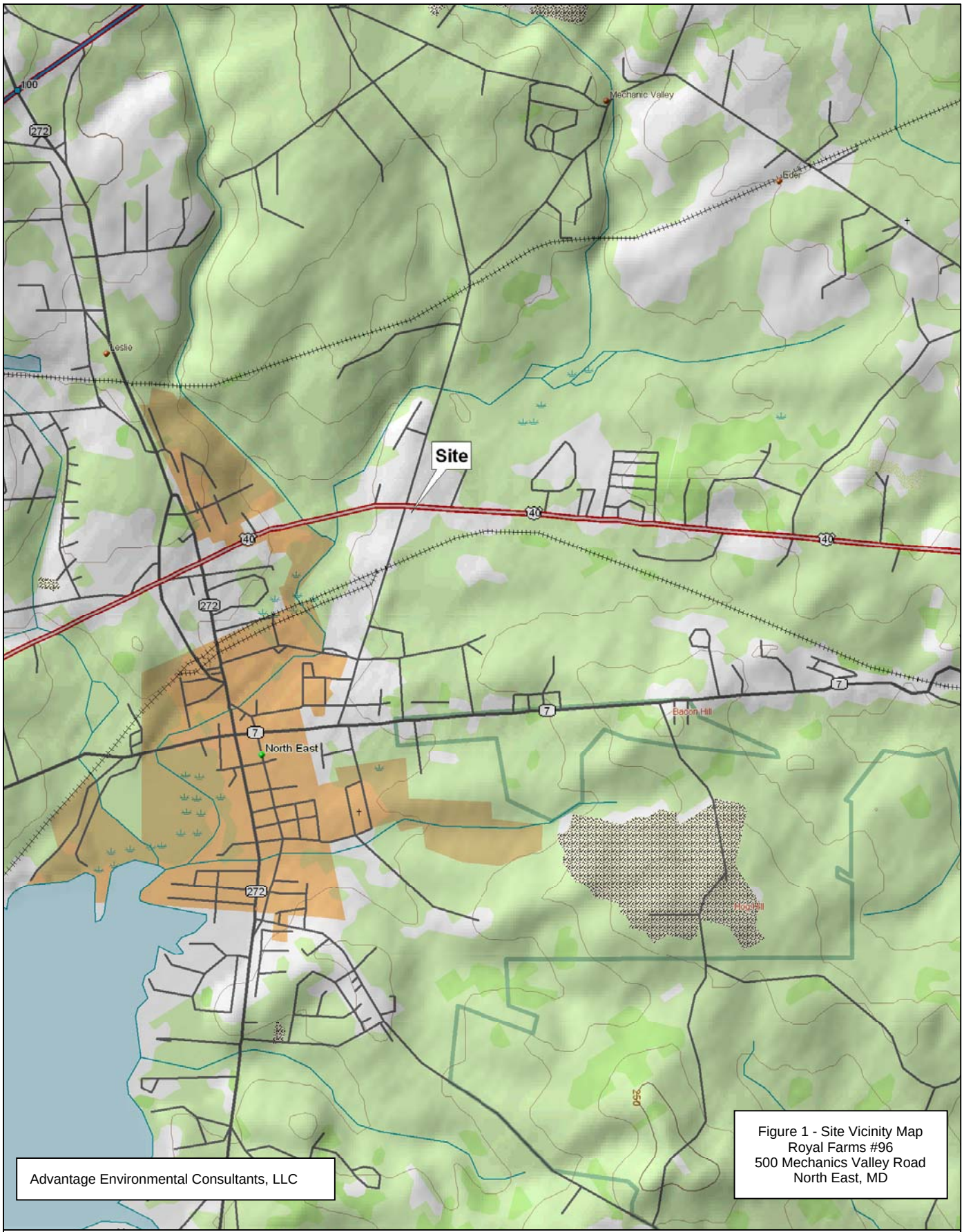

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Figure 1 - Site Vicinity Map
Royal Farms #96
500 Mechanics Valley Road
North East, MD

DELORME

© 2001 DeLorme. Topo USA® 3.0

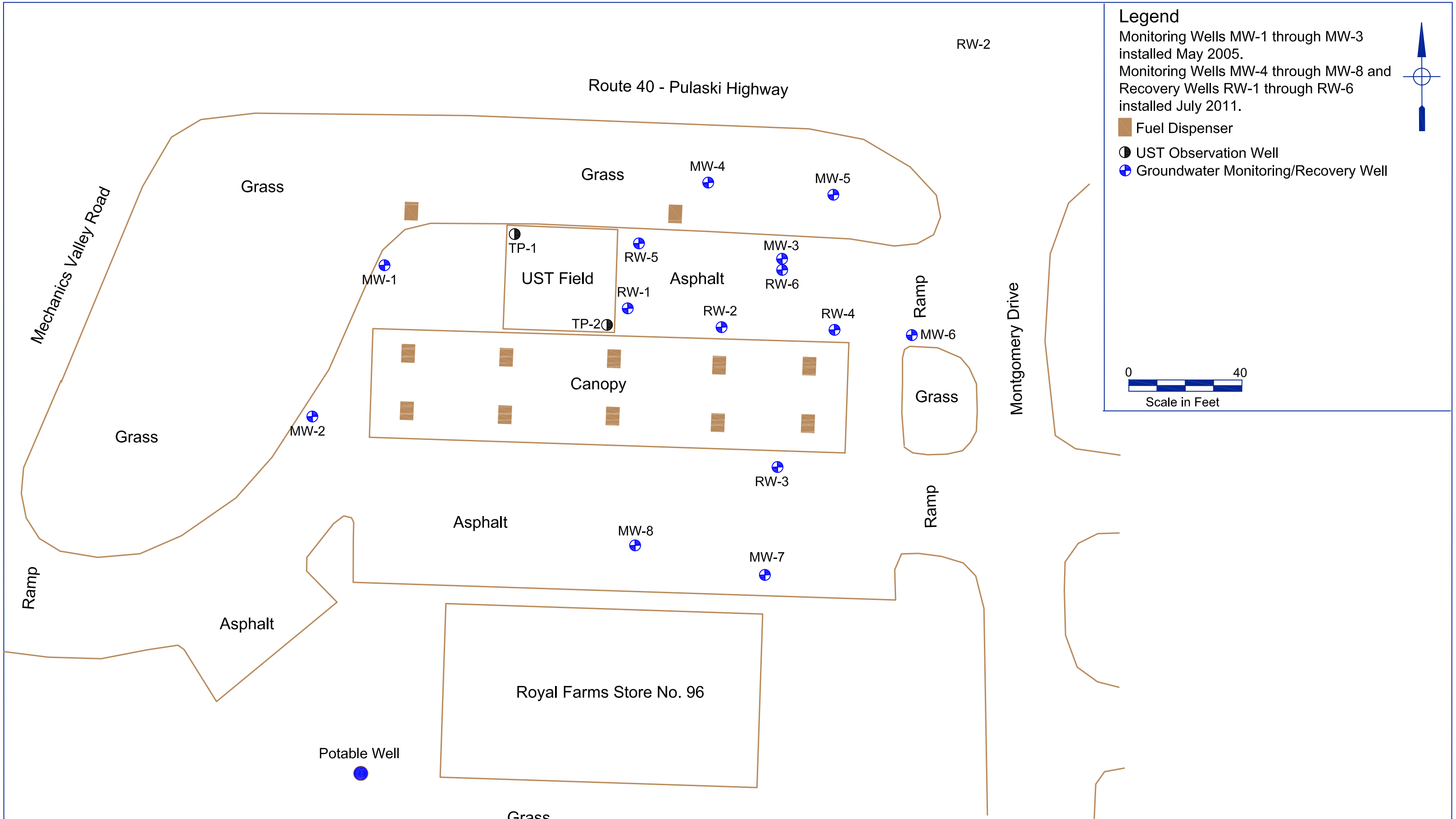
Zoom Level: 12-7 Datum: WGS84

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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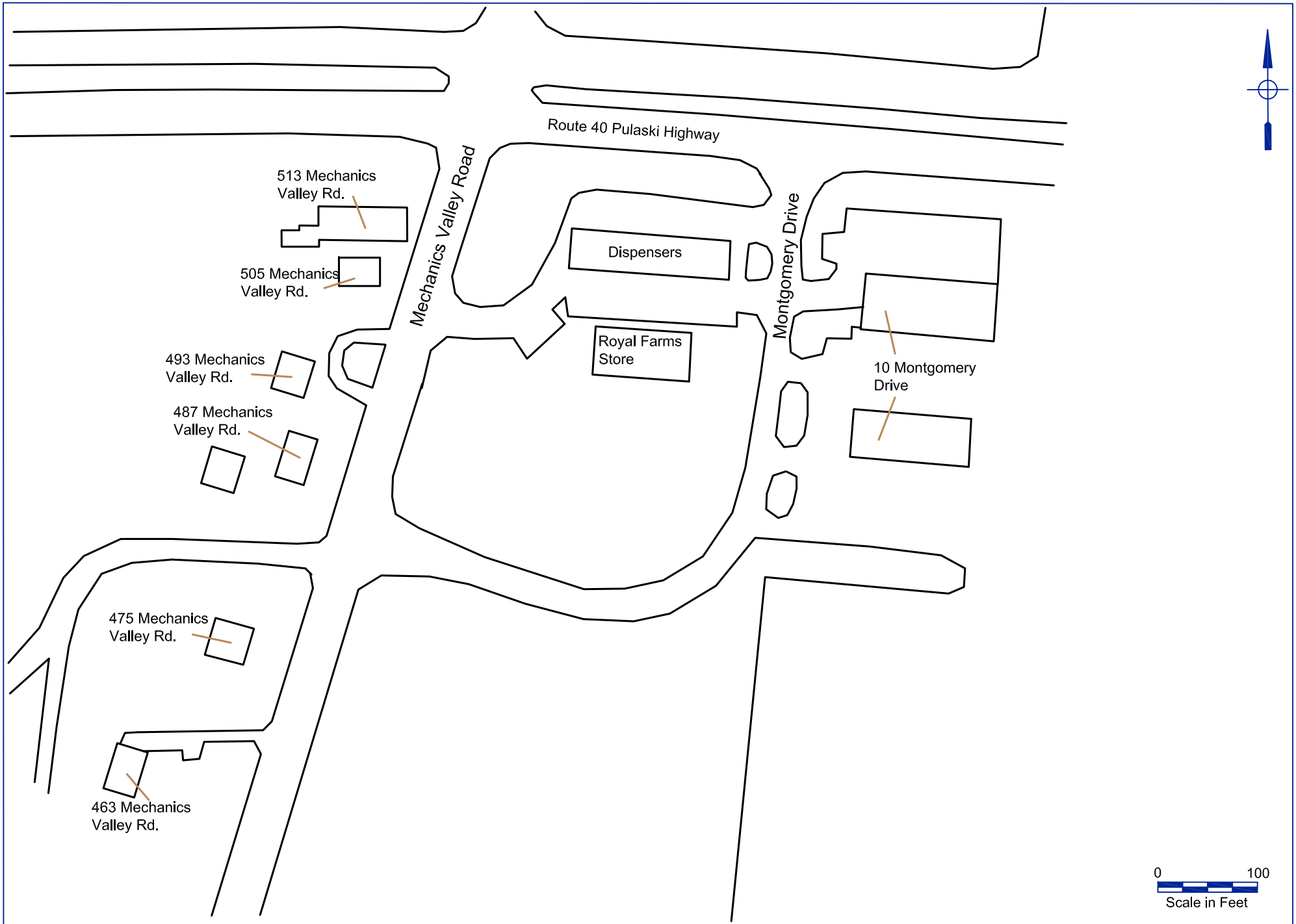
Project No.: 05-056	Drawn by: JSS
Task No.: RF96	Date: 6-22-11
File: Site Features	Revision No.: 1

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: JSS
Task No.: RF96	Date:7-14-11
File: Site Area	Revision No.: 1

Figure 3 - Site Area Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD

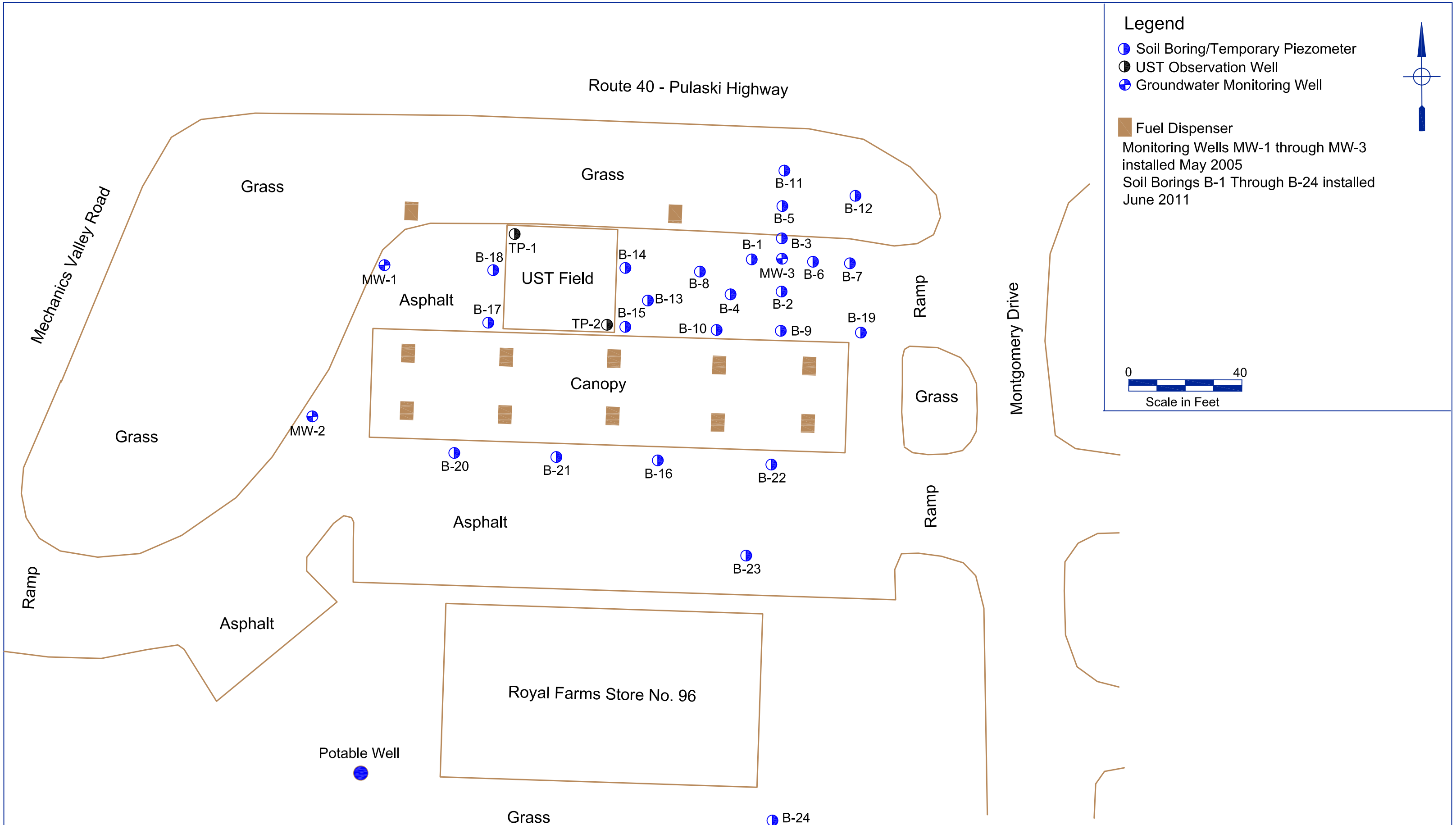

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Figure 4 - Boring/Temporary Piezometer Location Map
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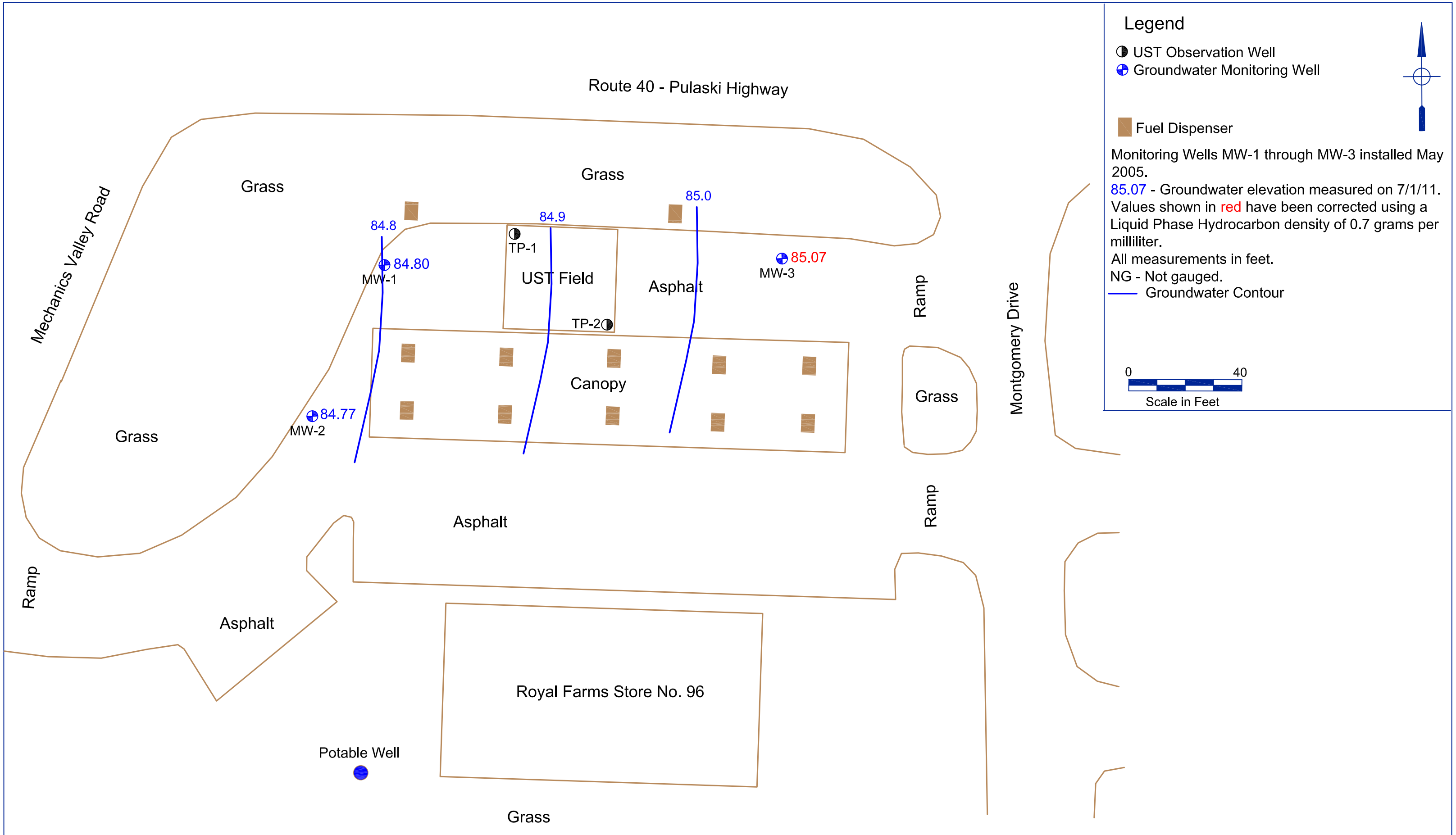
North East, MD



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Task No.: RF96	Date: 7-7-11
File: GW Grad	Revision No.: 1

Figure 5 - Groundwater Gradient Map
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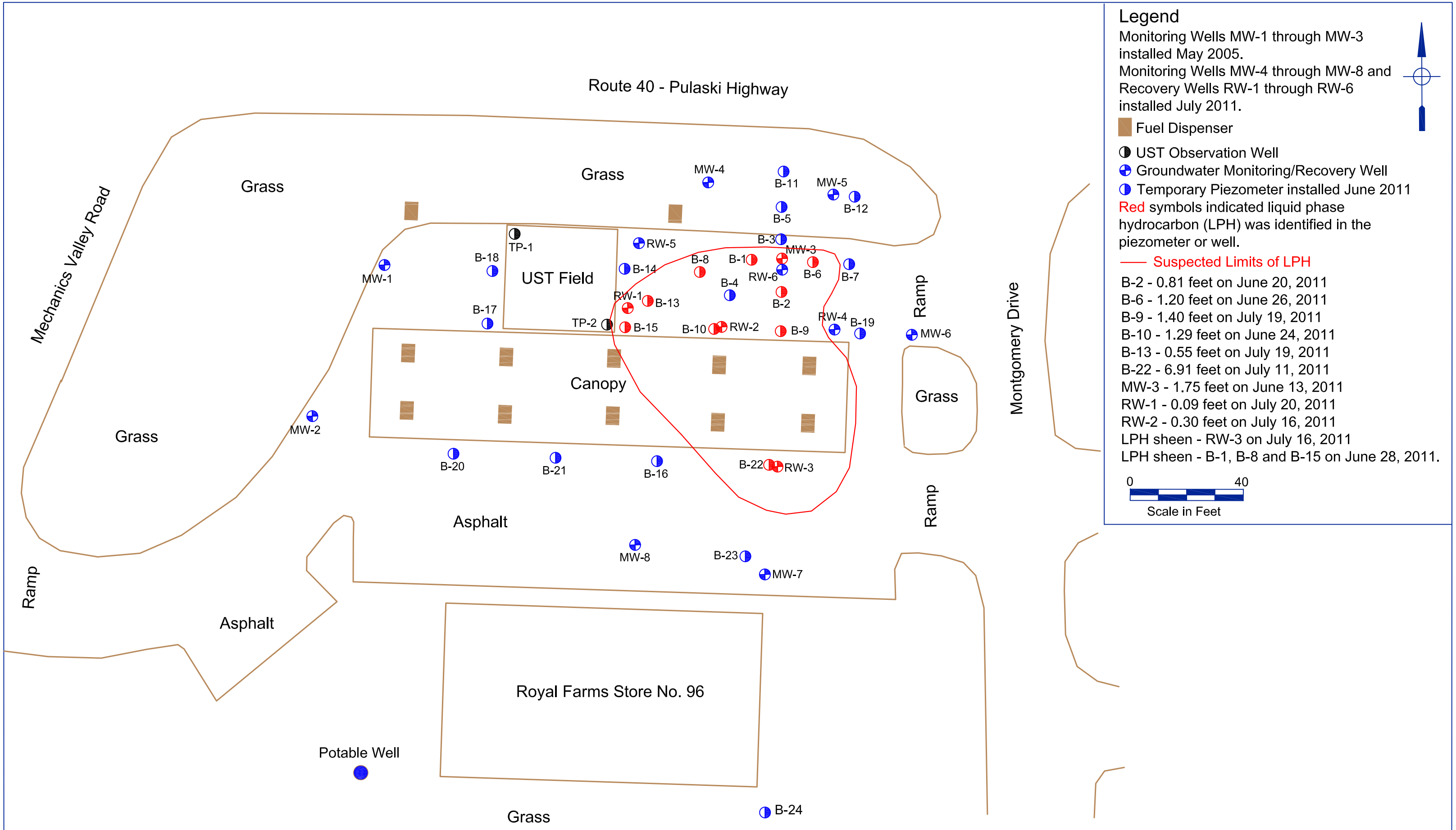

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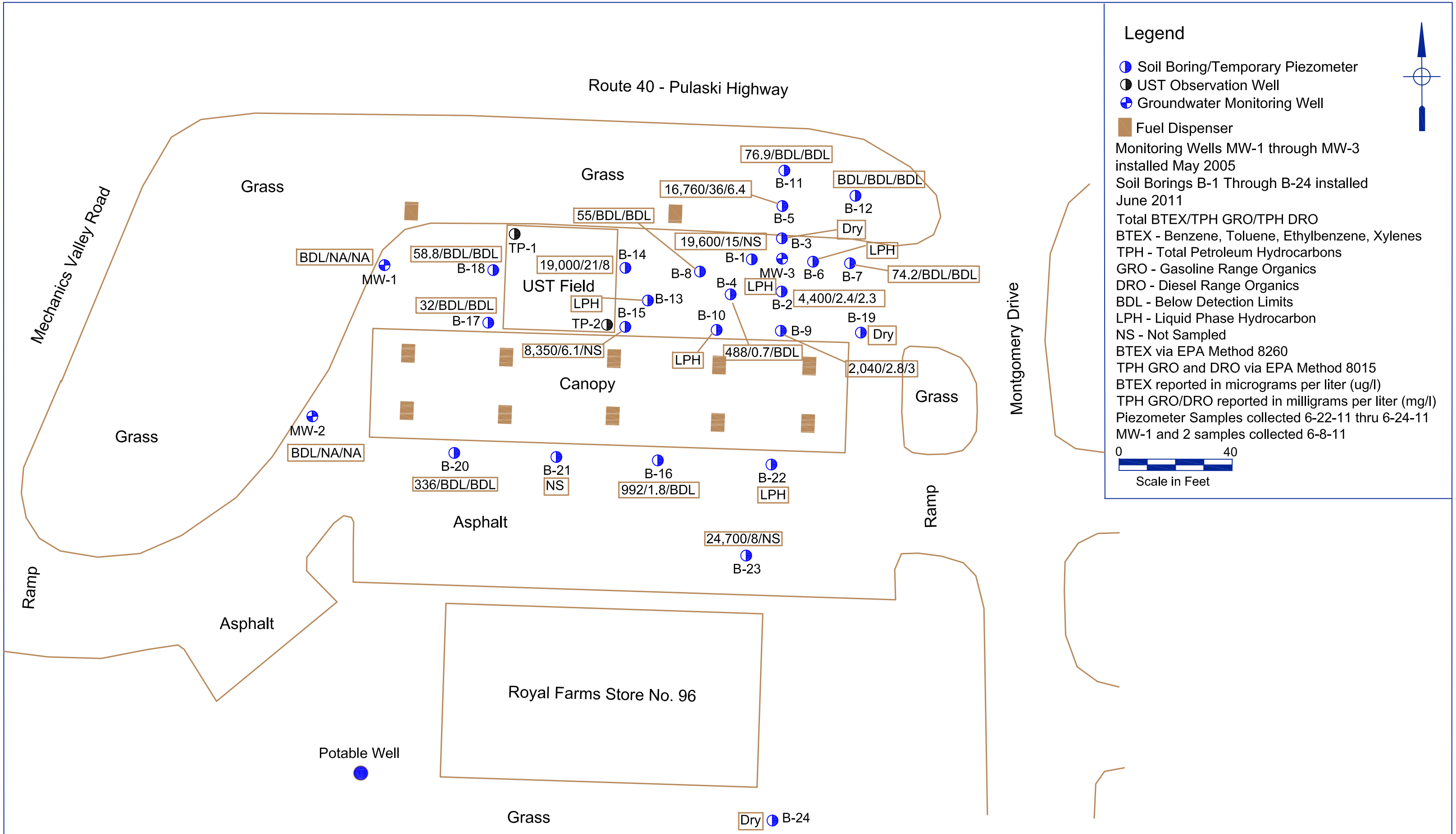
Project No.: 05-056	Drawn by: JSS
Task No.: RF96	Date: 7-22-11
File: LPH	Revision No.: 1

Figure 6 - Liquid Phase Hydrocarbon Distribution Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



Legend

- Soil Boring/Temporary Piezometer
- UST Observation Well
- Groundwater Monitoring Well
- Fuel Dispenser

Monitoring Wells MW-1 through MW-3 installed May 2005
Soil Borings B-1 Through B-24 installed June 2011
Total BTEX/TPH GRO/TPH DRO
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
TPH - Total Petroleum Hydrocarbons
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
BDL - Below Detection Limits
LPH - Liquid Phase Hydrocarbon
NS - Not Sampled
BTEX via EPA Method 8260
TPH GRO and DRO via EPA Method 8015
BTEX reported in micrograms per liter (ug/l)
TPH GRO/DRO reported in milligrams per liter (mg/l)
Piezometer Samples collected 6-22-11 thru 6-24-11
MW-1 and 2 samples collected 6-8-11

0 40
Scale in Feet

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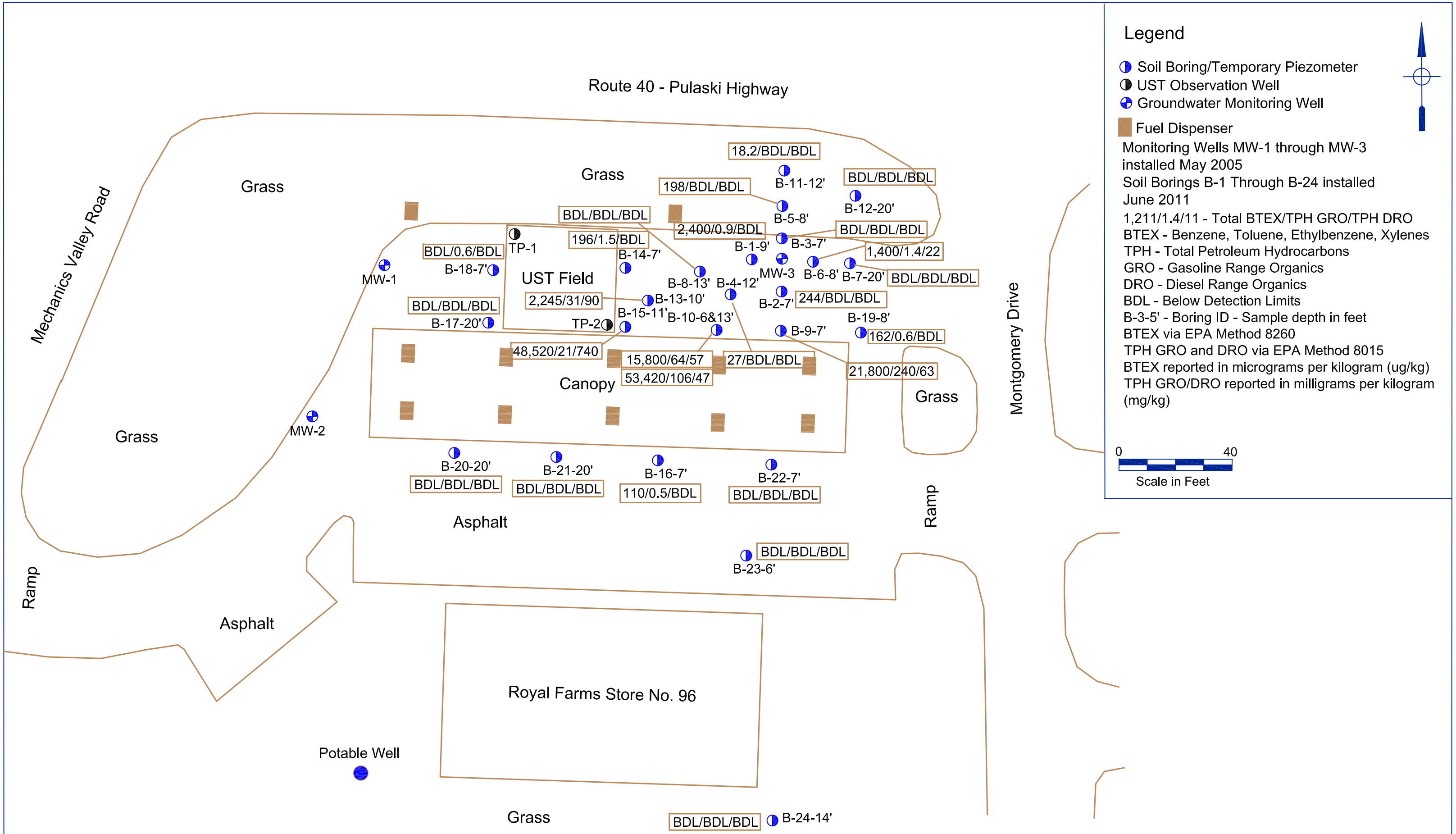
File:	Revision No.: 1

Figure 7 - Groundwater Quality Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



Legend

- Soil Boring/Temporary Piezometer
- UST Observation Well
- Groundwater Monitoring Well
- Fuel Dispenser

Monitoring Wells MW-1 through MW-3 installed May 2005
Soil Borings B-1 Through B-24 installed June 2011
1,211/1.4/11 - Total BTEX/TPH GRO/TPH DRO
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
TPH - Total Petroleum Hydrocarbons
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
BDL - Below Detection Limits
B-3-5' - Boring ID - Sample depth in feet
BTEX via EPA Method 8260
TPH GRO and DRO via EPA Method 8015
BTEX reported in micrograms per kilogram (ug/kg)
TPH GRO/DRO reported in milligrams per kilogram (mg/kg)

0 40
Scale in Feet

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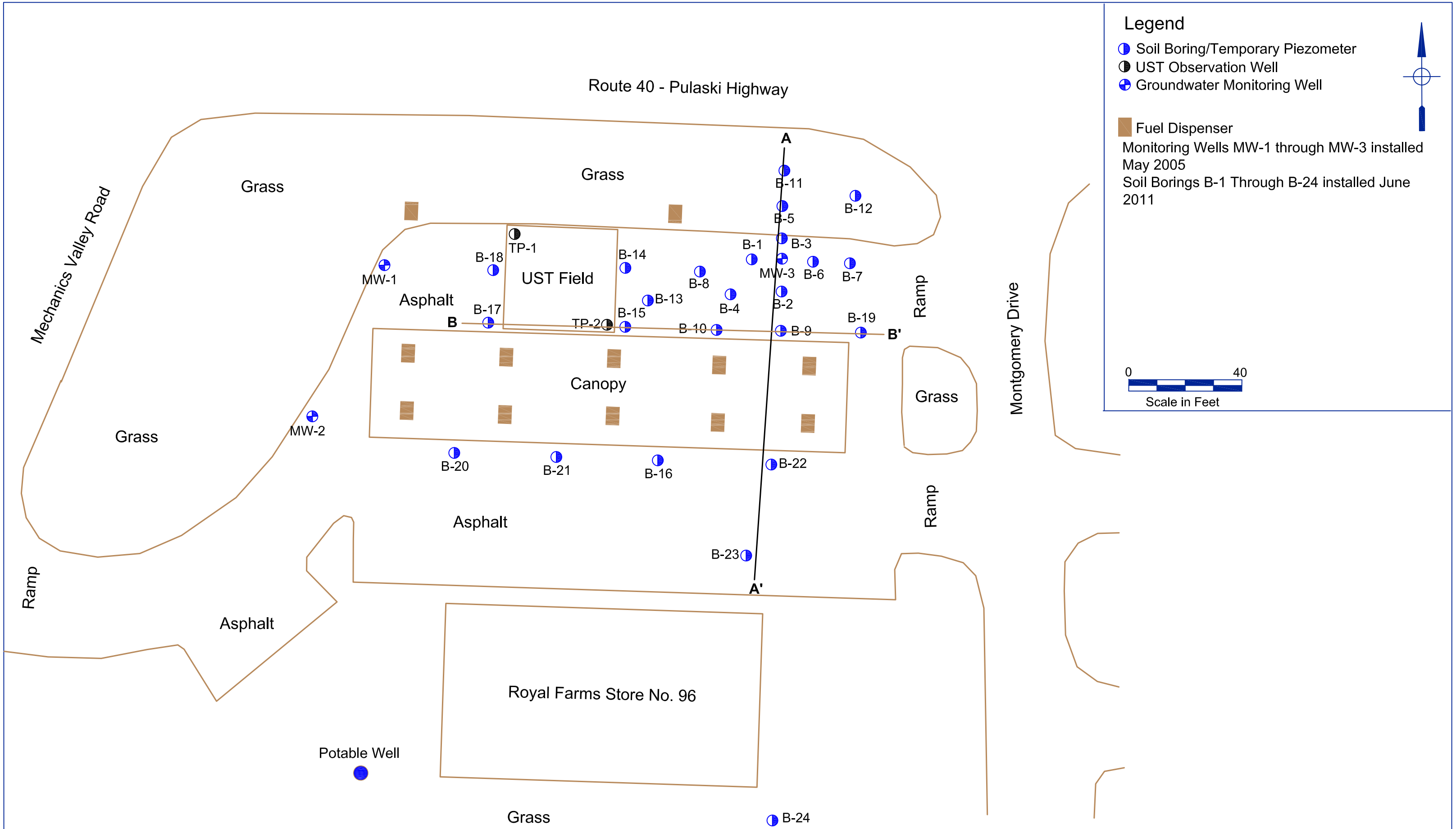
Task No.: RF96	Date: 6-27-11
File: Soil Qual	Revision No.: 1

Figure 8 - Soil Quality Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



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Task No.: RF96	Date: 6-27-11
File:	Revision No.: 1

Figure 9 - Trace of Lithologic Cross Sections
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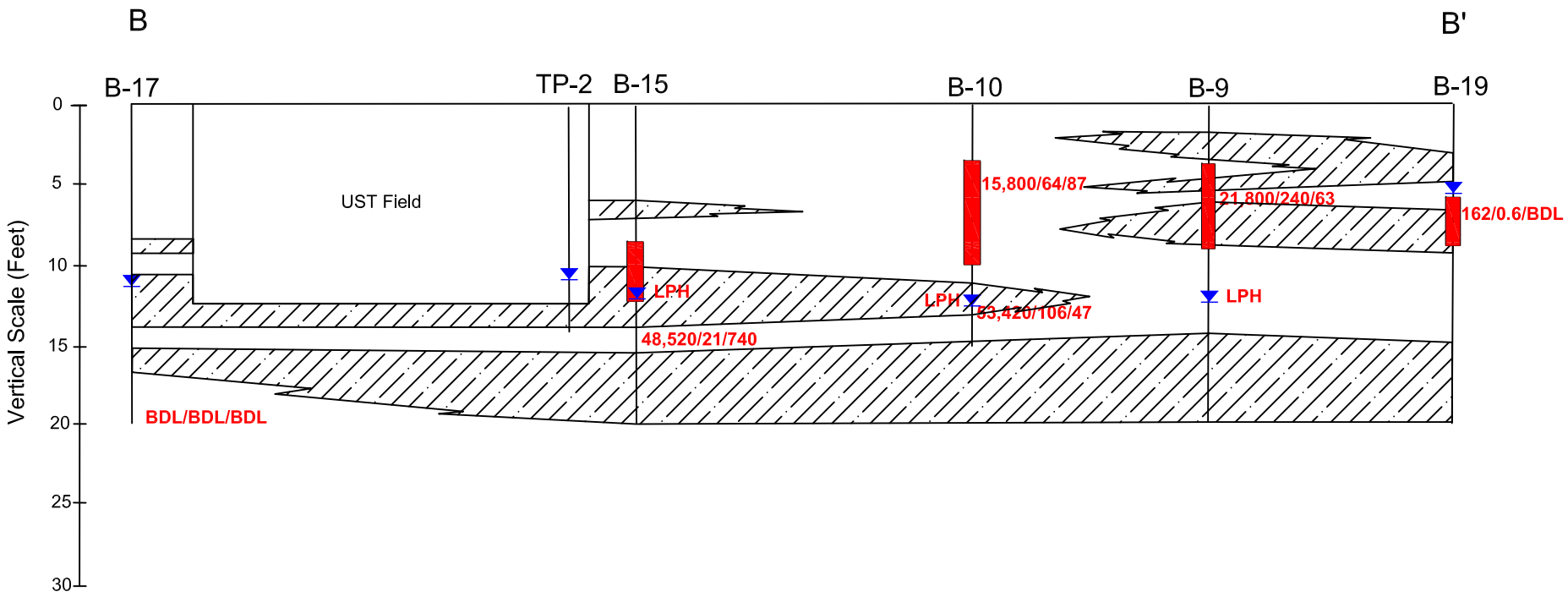
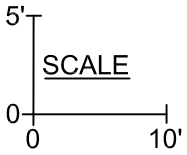
500 Mechanics Valley Road
North East, MD





Legend

predominately coarse grained material (sand/gravel)

predominately fine grained material (silt/clay)

B=Boring/Temporary Piezometer

TP=Tank Pit Observation Well

Water Level 6-29-2011

Zone of PID readings above 100 parts per million (ppm)

Soil Samples Collected 6-16-11 through 6-21-11

2340/1.2/30 = Total BTEX/TPH GRO/TPH DRO concentration.

Total BTEX in micrograms per kilogram (ug/kg)

TPH GRO and DRO in milligrams per kilogram (mg/kg)

Samples Analyzed by EPA Method 8260 (BTEX) and 8015 (TPH)

BDL = Below Detection Limits

LPH = Liquid Phase Hydrocarbon

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Jessup, Maryland 20794
301-776-0500

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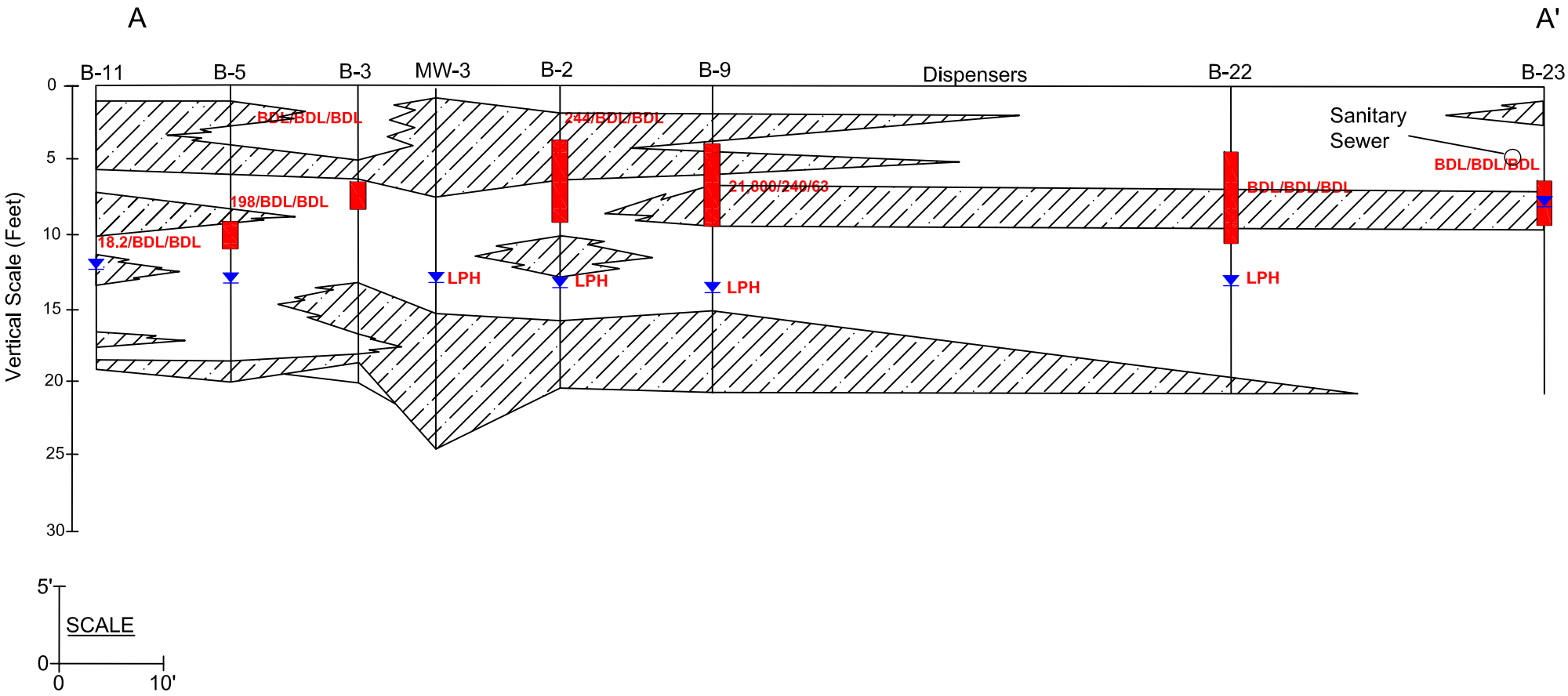
Date: 6-29-11	Revision: First

Figure 10 - Lithologic Cross Section A-A'
Royal Farms No. 96
500 Mechanics Valley Road
North East, Maryland



Legend

predominately coarse grained material (sand/gravel)

predominately fine grained material (silt/clay)

B=Boring/Temporary Piezometer

MW=Monitoring Well

Water Level 6-29-2011

Zone of PID readings above 100 parts per million (ppm)

Soil Samples Collected 6-16-11 through 6-21-11

2340/1.2/30 = Total BTEX/TPH GRO/TPH DRO concentration.

Total BTEX in micrograms per kilogram (ug/kg)

TPH GRO and DRO in milligrams per kilogram (mg/kg)

Samples Analyzed by EPA Method 8260 (BTEX) and 8015 (TPH)

BDL = Below Detection Limits

LPH = Liquid Phase Hydrocarbon

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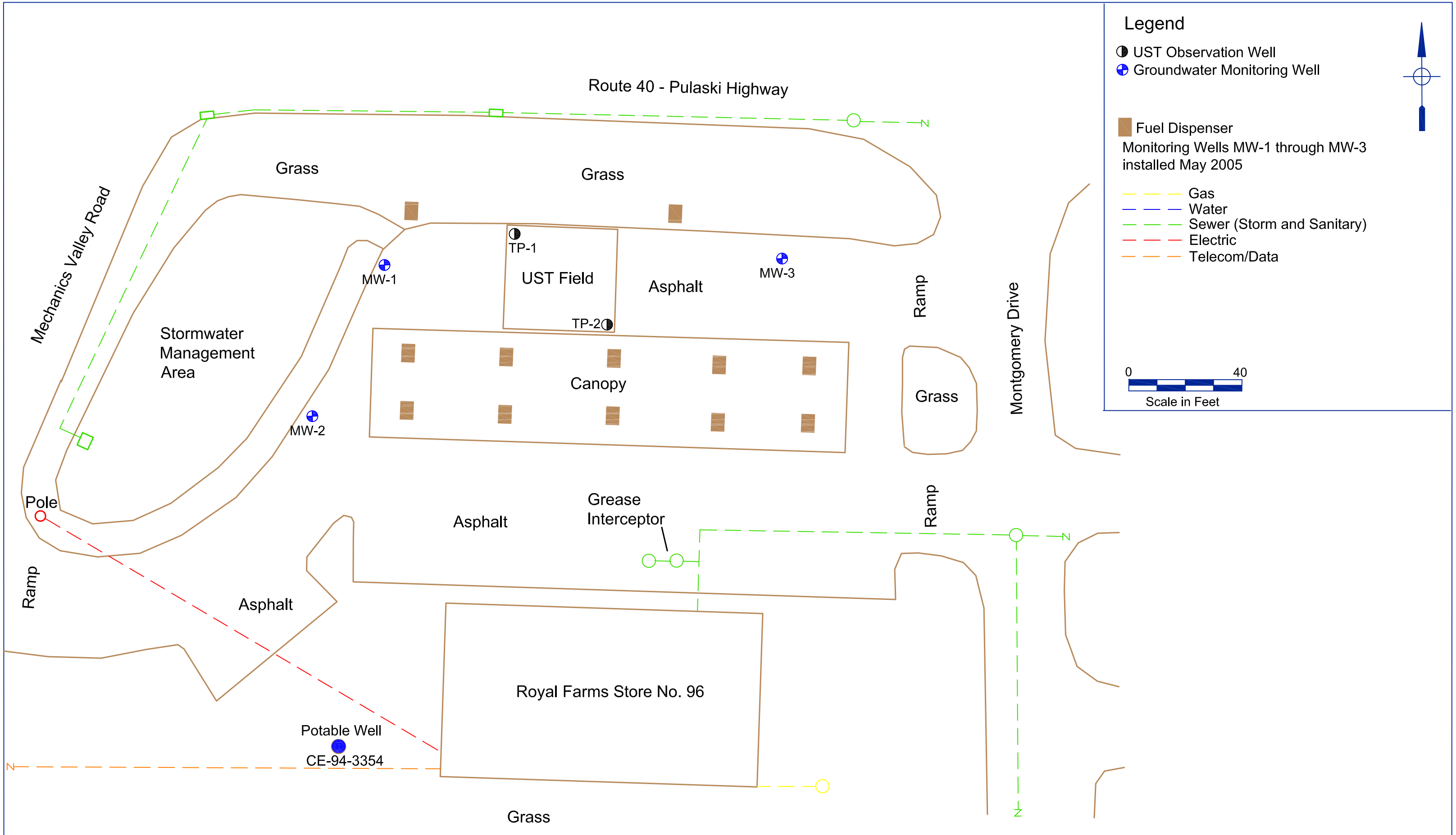
Date: 6-29-11	Revision: First

Figure 11 - Lithologic Cross Section B-B'
Royal Farms No. 96
500 Mechanics Valley Road
North East, Maryland



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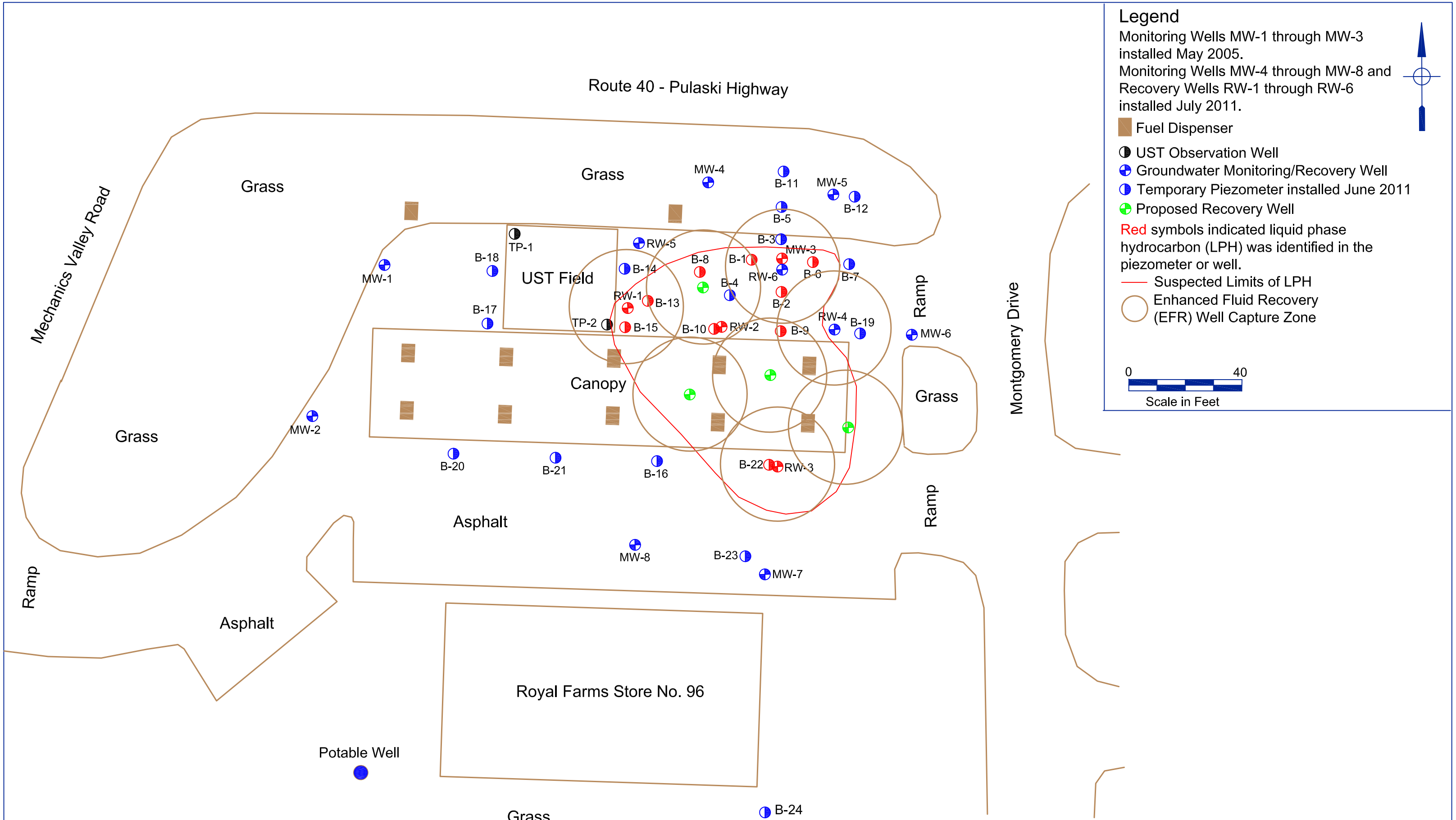
Project No.: 05-056	Drawn by: JSS
Task No.: RF96	Date: 6-22-11
File: Site Features	Revision No.: 1

Figure 12 - Site Utilities Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



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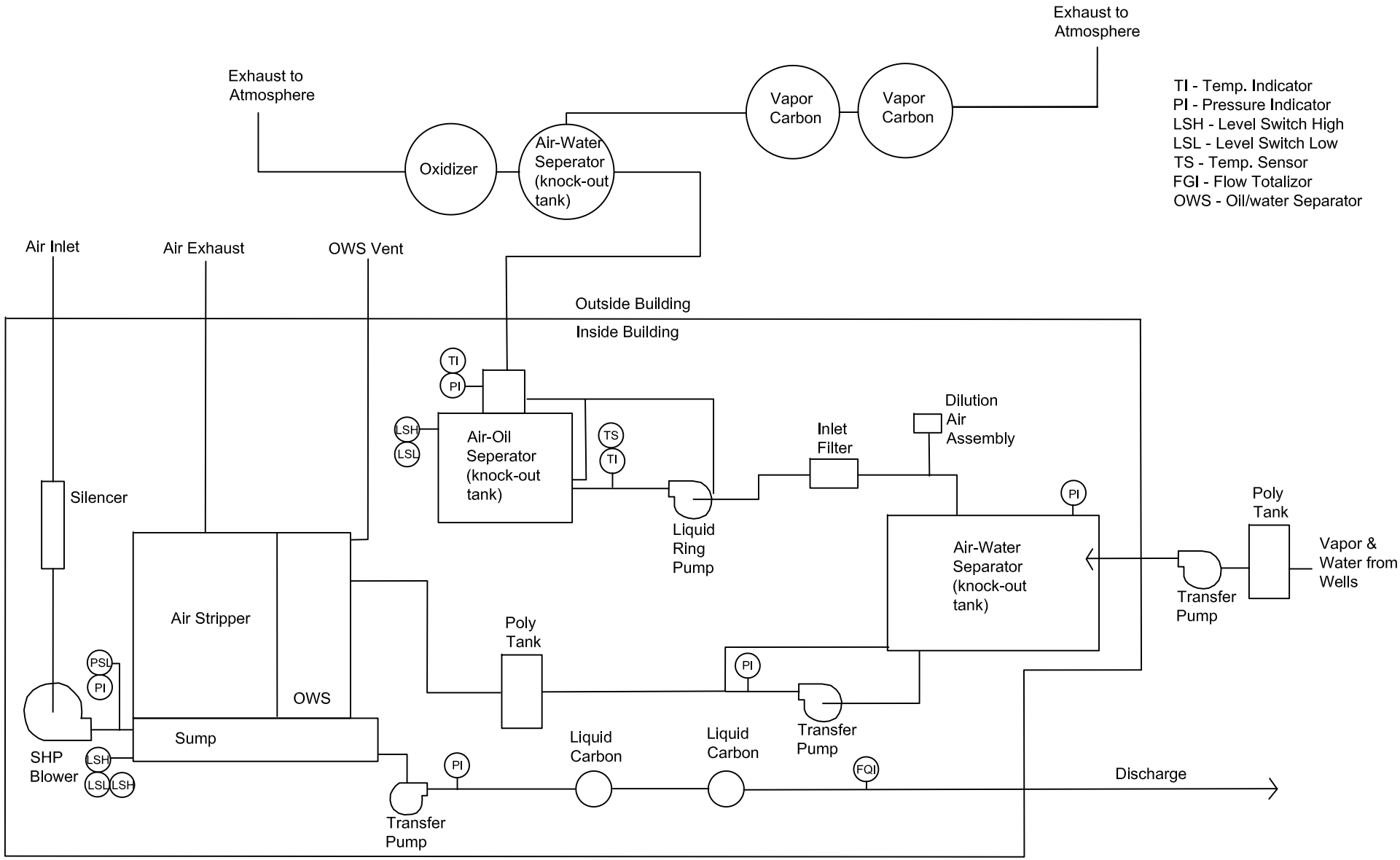
Project No.: 05-056	Drawn by: JSS
Task No.: RF96	Date: 7-22-11
File: Remed Zone	Revision No.: 1

Figure 13 - Proposed Remediation Zone Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD



Advantage Environmental Consultants, LLC 8610 Washington Boulavard, Suite 217 Jessup, Maryland 20794 301-776-0500	Drawn by: JSS	Checked by: JSS	Figure 14 - Process & Instrumentation Diagram Royal Farms No. 96 500 Mechanics Valley Road North East, Maryland
	Date: 7-21-11	Revision: First	

Route 40 - Pulaski Highway

Mechanics Valley Road

Grass

Grass

MW-4

MW-5

TP-1

RW-5

MW-1

UST Field

MW-3

RW-6

RW-1

TP-2

RW-2

RW-4

Ramp

MW-6

Montgomery Drive

Canopy

Grass

MW-2

Grass

RW-3

Ramp

Asphalt

MW-8

MW-7

Ramp

Asphalt

Royal Farms Store No. 96

Equipment Compound

Potable Well

Grass

Legend

Monitoring Wells MW-1 through MW-3 installed May 2005.
Monitoring Wells MW-4 through MW-8 and Recovery Wells RW-1 through RW-6 installed July 2011.

- Fuel Dispenser
- UST Observation Well
- Groundwater Monitoring Well
- Proposed/Existing Recovery Well
- 2-inch Recovery Well Line
- 4-inch Header Line
- 6-inch Trunk Line

0 40

Scale in Feet

Advantage Environmental Consultants, LLC
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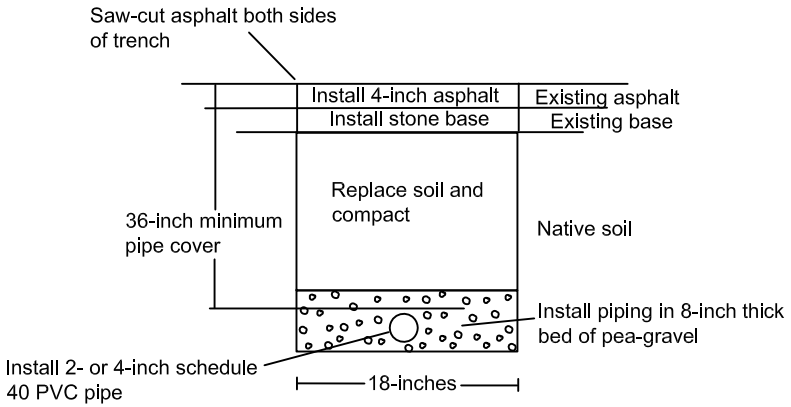
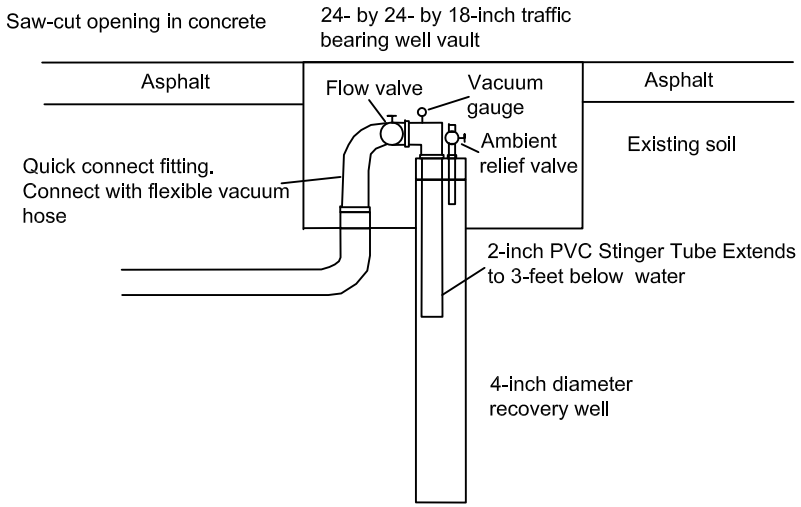
Project No.: 05-056	Drawn by: JSS
Task No.: RF96	Date: 7-22-11
File: Line Map	Revision No.: 1

Figure 15 - Proposed Trench Configuration Map
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD

Trench Section (Typical)



Well Head Set Up (Typical)



Advantage Environmental Consultants, LLC 8610 Washington Boulavard, Suite 217 Jessup, Maryland 20794 301-776-0500	Drawn by: JSS	Checked by: JSS	Figure 16 - Vault and Trench Details Royal Farms No. 96 500 Mechanics Valley Road North East, Maryland
	Date: 7-21-11	Revision: First	

APPENDIX B

TABLES

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
B-1	6/24/2011	Pre	NA	12.49	ND	NA	
		Post		12.52	ND	NA	
	6/25/2011	Pre	NA	12.47	ND	NA	
		Post		12.93	ND	NA	
	6/26/2011	Pre	NA	12.61	ND	NA	
		Post		12.95	ND	NA	
	6/27/2011	Pre	NA	12.87	ND	NA	
		Post		13.19	ND	NA	
	6/28/2011	Pre	NA	12.61	12.61	0.00	Sheen
		Post		12.72	12.72	0.00	Sheen
	6/29/2011	Pre	NA	12.19	ND	NA	
		Post		12.84	ND	NA	
	6/30/2011	Pre	NA	12.38	ND	NA	
		Post		12.95	ND	NA	
	7/1/2011	Pre	NA	12.49	ND	NA	
		Post		13.08	ND	NA	
	7/2/2011	Pre	NA	12.62	ND	NA	
		Post		13.24	ND	NA	
	7/3/2011	Pre	NA	12.71	ND	NA	
		Post		13.07	ND	NA	
	7/5/2011	Pre	NA	12.66	ND	NA	
		Post		13.06	ND	NA	
	7/6/2011	Pre	NA	12.72	ND	NA	
		Post		13.42	ND	NA	
	7/7/2011	Pre	NA	12.77	ND	NA	
		Post		13.42	ND	NA	
	7/8/2011	Pre	NA	12.74	ND	NA	
		Post		13.33	ND	NA	
	7/9/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	7/10/2011	Pre	NA	12.80	ND	NA	
		Post		13.19	ND	NA	
	7/11/2011	Pre	NA	12.87	ND	NA	
		Post		13.27	ND	NA	
	7/12/2011	Pre	NA	12.77	ND	NA	
		Post		13.37	ND	NA	
	7/13/2011	Pre	NA	12.86	ND	NA	
		Post		13.27	ND	NA	
	7/14/2011	Pre	NA	12.92	ND	NA	
		Post		13.38	ND	NA	
	7/15/2011	Pre	NA	12.93	ND	NA	
		Post		13.32	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		13.58	ND	NA	
	7/17/2011	Pre	NA	13.29	ND	NA	
		Post		13.55	ND	NA	
	7/18/2011	Pre	NA	13.03	ND	NA	
		Post		13.71	ND	NA	
	7/19/2011	Pre	NA	13.04	ND	NA	
		Post		13.55	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.60	ND	NA	
	7/21/2011	Pre	NA	13.03	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-2	6/24/2011	Pre	NA	12.87	ND	NA	
		Post		12.95	ND	NA	
	6/25/2011	Pre	NA	12.94	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		13.26	ND	NA	
	6/26/2011	Pre	NA	12.99	ND	NA	
		Post		13.60	ND	NA	
	6/27/2011	Pre	NA	13.01	ND	NA	
		Post		13.44	ND	NA	
	6/28/2011	Pre	NA	13.06	ND	NA	
		Post		13.23	ND	NA	
	6/29/2011	Pre	NA	12.71	ND	NA	
		Post		13.19	ND	NA	
	6/30/2011	Pre	NA	12.85	ND	NA	
		Post		13.21	ND	NA	
	7/1/2011	Pre	NA	12.94	ND	NA	
		Post		13.31	ND	NA	
	7/2/2011	Pre	NA	13.39	ND	NA	
		Post		13.43	ND	NA	
	7/3/2011	Pre	NA	13.06	ND	NA	
		Post		13.83	ND	NA	
	7/5/2011	Pre	NA	13.10	ND	NA	
		Post		13.40	ND	NA	
	7/6/2011	Pre	NA	13.13	ND	NA	
		Post		13.57	ND	NA	
	7/7/2011	Pre	NA	13.17	ND	NA	
		Post		13.54	ND	NA	
	7/8/2011	Pre	NA	13.16	ND	NA	
		Post		13.48	ND	NA	
	7/9/2011	Pre	NA	13.41	ND	NA	
		Post		13.79	ND	NA	
	7/10/2011	Pre	NA	13.14	ND	NA	
		Post		13.46	ND	NA	
	7/11/2011	Pre	NA	13.19	ND	NA	
		Post		13.49	ND	NA	
	7/12/2011	Pre	NA	13.20	ND	NA	
		Post		13.52	ND	NA	
	7/13/2011	Pre	NA	13.27	ND	NA	
		Post		13.52	ND	NA	
	7/14/2011	Pre	NA	13.77	ND	NA	
		Post		13.57	ND	NA	
	7/15/2011	Pre	NA	13.37	ND	NA	
		Post		13.67	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		14.93	ND	NA	
	7/17/2011	Pre	NA	14.31	ND	NA	
		Post		13.75	ND	NA	
	7/18/2011	Pre	NA	13.45	ND	NA	
		Post		13.69	ND	NA	
	7/19/2011	Pre	NA	13.44	ND	NA	
		Post		13.66	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.89	ND	NA	
	7/21/2011	Pre	NA	13.45	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-3	6/24/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/25/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/26/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	6/27/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/28/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/29/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/30/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/1/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/2/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/3/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/5/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/6/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/7/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/8/2011	Pre	NA	10.52	ND	NA	
		Post		10.48	ND	NA	
	7/9/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	7/10/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/11/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/12/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/13/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/14/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/15/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/16/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/17/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/18/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/19/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		Dry	ND	NA	
	7/21/2011	Pre	NA	Dry	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-4	6/24/2011	Pre	NA	12.63	ND	NA	
		Post		12.67	ND	NA	
	6/25/2011	Pre	NA	12.68	ND	NA	
		Post		12.97	ND	NA	
	6/26/2011	Pre	NA	13.21	ND	NA	
		Post		13.30	ND	NA	
	6/27/2011	Pre	NA	12.79	ND	NA	
		Post		13.06	ND	NA	
	6/28/2011	Pre	NA	12.88	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		12.57	ND	NA	
	6/29/2011	Pre	NA	12.43	ND	NA	
		Post		12.72	ND	NA	
	6/30/2011	Pre	NA	12.59	ND	NA	
		Post		12.81	ND	NA	
	7/1/2011	Pre	NA	12.68	ND	NA	
		Post		12.93	ND	NA	
	7/2/2011	Pre	NA	13.44	ND	NA	
		Post		13.03	ND	NA	
	7/3/2011	Pre	NA	12.78	ND	NA	
		Post		13.42	ND	NA	
	7/5/2011	Pre	NA	12.84	ND	NA	
		Post		13.02	ND	NA	
	7/6/2011	Pre	NA	12.88	ND	NA	
		Post		13.21	ND	NA	
	7/7/2011	Pre	NA	12.91	ND	NA	
		Post		13.22	ND	NA	
	7/8/2011	Pre	NA	12.91	ND	NA	
		Post		13.13	ND	NA	
	7/9/2011	Pre	NA	12.81	ND	NA	
		Post		13.49	ND	NA	
	7/10/2011	Pre	NA	13.69	ND	NA	
		Post		13.11	ND	NA	
	7/11/2011	Pre	NA	12.94	ND	NA	
		Post		13.18	ND	NA	
	7/12/2011	Pre	NA	12.96	ND	NA	
		Post		13.24	ND	NA	
	7/13/2011	Pre	NA	13.02	ND	NA	
		Post		13.22	ND	NA	
	7/14/2011	Pre	NA	13.57	ND	NA	
		Post		13.29	ND	NA	
	7/15/2011	Pre	NA	13.09	ND	NA	
		Post		13.47	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		13.57	ND	NA	
	7/17/2011	Pre	NA	14.48	ND	NA	
		Post		13.49	ND	NA	
	7/18/2011	Pre	NA	13.21	ND	NA	
		Post		13.53	ND	NA	
	7/19/2011	Pre	NA	13.23	ND	NA	
		Post		13.53	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.55	ND	NA	
	7/21/2011	Pre	NA	NG	NG	NA	No access
		Post		NG	NG	NA	No data due to site work
B-5	6/24/2011	Pre	NA	13.96	ND	NA	
		Post		14.02	ND	NA	
	6/25/2011	Pre	NA	14.11	ND	NA	
		Post		14.25	ND	NA	
	6/26/2011	Pre	NA	14.27	ND	NA	
		Post		14.34	ND	NA	
	6/27/2011	Pre	NA	14.54	ND	NA	
		Post		14.47	ND	NA	
	6/28/2011	Pre	NA	14.11	ND	NA	
		Post		14.31	ND	NA	
	6/29/2011	Pre	NA	13.78	ND	NA	
		Post		14.16	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	6/30/2011	Pre	NA	13.92	ND	NA	
		Post		14.23	ND	NA	
	7/1/2011	Pre	NA	14.02	ND	NA	
		Post		14.35	ND	NA	
	7/2/2011	Pre	NA	14.27	ND	NA	
		Post		14.49	ND	NA	
	7/3/2011	Pre	NA	14.11	ND	NA	
		Post		14.50	ND	NA	
	7/5/2011	Pre	NA	14.15	ND	NA	
		Post		14.44	ND	NA	
	7/6/2011	Pre	NA	14.27	ND	NA	
		Post		14.73	ND	NA	
	7/7/2011	Pre	NA	14.37	ND	NA	
		Post		14.74	ND	NA	
	7/8/2011	Pre	NA	14.35	ND	NA	
		Post		14.65	ND	NA	
	7/9/2011	Pre	NA	14.28	ND	NA	
		Post		14.66	ND	NA	
	7/10/2011	Pre	NA	14.34	ND	NA	
		Post		14.58	ND	NA	
	7/11/2011	Pre	NA	14.38	ND	NA	
		Post		14.73	ND	NA	
	7/12/2011	Pre	NA	14.41	ND	NA	
		Post		14.74	ND	NA	
	7/13/2011	Pre	NA	14.47	ND	NA	
		Post		14.72	ND	NA	
	7/14/2011	Pre	NA	14.64	ND	NA	
		Post		14.79	ND	NA	
	7/15/2011	Pre	NA	14.53	ND	NA	
		Post		14.78	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		17.16	ND	NA	
	7/17/2011	Pre	NA	15.11	ND	NA	
		Post		14.67	ND	NA	
	7/18/2011	Pre	NA	14.66	ND	NA	
		Post		15.02	ND	NA	
	7/19/2011	Pre	NA	14.62	ND	NA	
		Post		14.98	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		15.01	ND	NA	
	7/21/2011	Pre	NA	14.64	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-6	6/24/2011	Pre	NA	8.27	ND	NA	
		Post		8.95	ND	NA	
	6/25/2011	Pre	NA	8.31	8.31	0.00	Sheen
		Post		9.42	ND	NA	
	6/26/2011	Pre	Hand-Bail	10.19	8.99	1.20	
		Post		10.58	10.28	0.30	
	6/27/2011	Pre	NA	9.49	ND	NA	
		Post		10.74	ND	NA	
	6/28/2011	Pre	NA	9.74	9.54	0.20	
		Post		11.12	10.81	0.31	
	6/29/2011	Pre	NA	9.75	9.56	0.19	
		Post		10.94	10.77	0.17	
	6/30/2011	Pre	NA	10.04	9.92	0.12	
		Post		11.06	10.96	0.10	
	7/1/2011	Pre	NA	10.25	10.18	0.07	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		11.79	11.71	0.08	
	7/2/2011	Pre	NA	11.44	11.29	0.15	
		Post		11.41	11.34	0.07	
	7/3/2011	Pre	NA	10.45	ND	NA	
		Post		11.55	ND	NA	
	7/5/2011	Pre	NA	10.46	10.33	0.13	
		Post		11.27	11.08	0.19	
	7/6/2011	Pre	NA	11.49	11.43	0.06	
		Post		11.42	11.35	0.07	
	7/7/2011	Pre	NA	10.96	10.77	0.19	
		Post		13.62	13.53	0.09	
	7/8/2011	Pre	NA	13.05	12.86	0.19	
		Post		13.25	13.21	0.04	
	7/9/2011	Pre	NA	13.82	13.69	0.13	
		Post		13.42	13.30	0.12	
	7/10/2011	Pre	NA	13.23	ND	NA	
		Post		13.08	ND	NA	
	7/11/2011	Pre	NA	13.16	12.81	0.35	
		Post		13.41	13.28	0.13	
	7/12/2011	Pre	NA	12.86	12.73	0.13	
		Post		13.27	13.21	0.06	
	7/13/2011	Pre	NA	13.13	13.01	0.12	
		Post		13.23	13.13	0.10	
	7/14/2011	Pre	NA	13.58	13.44	0.14	
		Post		13.30	13.24	0.06	
	7/15/2011	Pre	NA	12.41	12.36	0.05	
		Post		12.99	12.94	0.05	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		13.40	13.33	0.07	
	7/17/2011	Pre	NA	13.85	ND	NA	
		Post		13.56	ND	NA	
	7/18/2011	Pre	NA	13.41	13.19	0.22	
		Post		13.70	13.59	0.11	
	7/19/2011	Pre	NA	13.35	13.21	0.14	
		Post		12.89	12.79	0.10	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		12.59	12.47	0.12	
	7/21/2011	Pre	NA	12.34	12.23	0.11	
		Post		NG	NG	NA	No data due to site work
B-7	6/24/2011	Pre	NA	6.90	ND	NA	
		Post		6.90	ND	NA	
	6/25/2011	Pre	NA	7.41	ND	NA	
		Post		6.95	ND	NA	
	6/26/2011	Pre	NA	6.95	ND	NA	
		Post		6.98	ND	NA	
	6/27/2011	Pre	NA	6.95	ND	NA	
		Post		6.98	ND	NA	
	6/28/2011	Pre	NA	6.95	ND	NA	
		Post		6.87	ND	NA	
	6/29/2011	Pre	NA	6.94	ND	NA	
		Post		7.02	ND	NA	
	6/30/2011	Pre	NA	6.97	ND	NA	
		Post		6.99	ND	NA	
	7/1/2011	Pre	NA	6.99	ND	NA	
		Post		7.07	ND	NA	
	7/2/2011	Pre	NA	7.17	ND	NA	
		Post		7.06	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/3/2011	Pre	NA	7.02	ND	NA	
		Post		7.11	ND	NA	
	7/5/2011	Pre	NA	7.04	ND	NA	
		Post		7.04	ND	NA	
	7/6/2011	Pre	NA	7.04	ND	NA	
		Post		7.18	ND	NA	
	7/7/2011	Pre	NA	7.03	ND	NA	
		Post		7.14	ND	NA	
	7/8/2011	Pre	NA	7.03	ND	NA	
		Post		7.09	ND	NA	
	7/9/2011	Pre	NA	7.05	ND	NA	
		Post		7.15	ND	NA	
	7/10/2011	Pre	NA	7.03	ND	NA	
		Post		7.05	ND	NA	
	7/11/2011	Pre	NA	7.09	ND	NA	
		Post		7.11	ND	NA	
	7/12/2011	Pre	NA	7.14	ND	NA	
		Post		7.09	ND	NA	
	7/13/2011	Pre	NA	7.10	ND	NA	
		Post		7.25	ND	NA	
	7/14/2011	Pre	NA	7.18	ND	NA	
		Post		7.29	ND	NA	
	7/15/2011	Pre	NA	7.21	ND	NA	
		Post		7.24	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		7.15	ND	NA	
	7/17/2011	Pre	NA	7.30	ND	NA	
		Post		7.18	ND	NA	
	7/18/2011	Pre	NA	7.27	ND	NA	
		Post		7.27	ND	NA	
	7/19/2011	Pre	NA	7.22	ND	NA	
		Post		7.28	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		7.17	ND	NA	
	7/21/2011	Pre	NA	7.34	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-8	6/24/2011	Pre	NA	12.09	ND	NA	
		Post		13.18	ND	NA	
	6/25/2011	Pre	NA	12.13	ND	NA	
		Post		12.39	ND	NA	
	6/26/2011	Pre	NA	12.28	ND	NA	
		Post		12.45	ND	NA	
	6/27/2011	Pre	NA	12.27	ND	NA	
		Post		12.58	ND	NA	
	6/28/2011	Pre	NA	12.28	ND	NA	
		Post		11.57	11.57	0.00	Sheen
	6/29/2011	Pre	NA	11.62	ND	NA	
		Post		11.94	ND	NA	
	6/30/2011	Pre	NA	11.93	ND	NA	
		Post		12.18	ND	NA	
	7/1/2011	Pre	NA	12.09	ND	NA	
		Post		12.35	ND	NA	
	7/2/2011	Pre	NA	12.39	ND	NA	
		Post		12.56	ND	NA	
	7/3/2011	Pre	NA	12.29	ND	NA	
		Post		12.54	ND	NA	
	7/5/2011	Pre	NA	12.32	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		12.51	ND	NA	
	7/6/2011	Pre	NA	12.43	ND	NA	
		Post		12.65	ND	NA	
	7/7/2011	Pre	NA	12.44	ND	NA	
		Post		12.76	ND	NA	
	7/8/2011	Pre	NA	12.39	ND	NA	
		Post		12.63	ND	NA	
	7/9/2011	Pre	NA	12.22	ND	NA	
		Post		12.48	ND	NA	
	7/10/2011	Pre	NA	12.50	ND	NA	
		Post		12.51	ND	NA	
	7/11/2011	Pre	NA	12.39	ND	NA	
		Post		12.65	ND	NA	
	7/12/2011	Pre	NA	12.43	ND	NA	
		Post		12.70	ND	NA	
	7/13/2011	Pre	NA	12.51	ND	NA	
		Post		12.74	ND	NA	
	7/14/2011	Pre	NA	12.64	ND	NA	
		Post		12.80	ND	NA	
	7/15/2011	Pre	NA	12.61	ND	NA	
		Post		12.82	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		12.95	ND	NA	
	7/17/2011	Pre	NA	13.13	ND	NA	
		Post		12.92	ND	NA	
	7/18/2011	Pre	NA	12.73	ND	NA	
		Post		NG	ND	NA	
	7/19/2011	Pre	NA	12.73	ND	NA	
		Post		12.99	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		12.84	ND	NA	
	7/21/2011	Pre	NA	12.66	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-9	6/24/2011	Pre	NA	NG	ND	NA	
		Post		13.18	ND	NA	
	6/25/2011	Pre	NA	13.18	ND	NA	
		Post		13.45	ND	NA	
	6/26/2011	Pre	NA	13.68	ND	NA	
		Post		13.70	ND	NA	
	6/27/2011	Pre	NA	13.20	ND	NA	
		Post		13.59	ND	NA	
	6/28/2011	Pre	NA	13.28	ND	NA	
		Post		13.12	ND	NA	
	6/29/2011	Pre	NA	12.95	ND	NA	
		Post		13.22	ND	NA	
	6/30/2011	Pre	NA	13.08	ND	NA	
		Post		13.32	ND	NA	
	7/1/2011	Pre	NA	13.17	ND	NA	
		Post		13.43	ND	NA	
	7/2/2011	Pre	NA	13.81	13.79	0.02	
		Post		13.56	ND	NA	
	7/3/2011	Pre	NA	13.29	13.26	0.03	
		Post		13.83	13.82	0.01	
	7/5/2011	Pre	NA	13.46	13.29	0.17	
		Post		13.62	13.47	0.15	
	7/6/2011	Pre	NA	14.07	13.78	0.29	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		13.86	13.65	0.21	
	7/7/2011	Pre	NA	13.59	13.34	0.25	
		Post		13.90	13.67	0.23	
	7/8/2011	Pre	NA	13.63	13.31	0.32	
		Post		13.35	ND	NA	
	7/9/2011	Pre	NA	13.67	13.22	0.45	
		Post		14.28	13.78	0.50	
	7/10/2011	Pre	NA	14.23	13.84	0.39	
		Post		13.98	13.51	0.47	
	7/11/2011	Pre	NA	13.29	ND	NA	
		Post		14.09	13.53	0.56	
	7/12/2011	Pre	NA	13.98	13.29	0.69	
		Post		14.24	13.57	0.67	
	7/13/2011	Pre	NA	14.08	13.32	0.76	
		Post		14.27	13.52	0.75	
	7/14/2011	Pre	NA	14.67	13.81	0.86	
		Post		14.36	13.56	0.80	
	7/15/2011	Pre	NA	14.25	13.37	0.88	
		Post		14.50	13.57	0.93	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		NG	NA	NA	
	7/17/2011	Pre	NA	15.47	14.32	1.15	
		Post		14.61	13.81	0.80	
	7/18/2011	Pre	NA	15.11	13.86	1.25	
		Post		14.66	13.78	0.88	
	7/19/2011	Pre	NA	14.47	13.42	1.05	
		Post		14.66	13.26	1.40	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		NA	NA	NA	No access
	7/21/2011	Pre	NA	14.36	13.41	0.95	
		Post		NG	NG	NA	No data due to site work
B-10	6/24/2011	Pre	NA	13.05	11.80	1.25	
		Post		13.27	11.98	1.29	
	6/25/2011	Pre	Hand-Bail	13.14	12.04	1.10	
		Post		13.17	12.95	0.22	
	6/26/2011	Pre	Hand-Bail	12.62	12.41	0.21	
		Post		13.13	13.00	0.13	
	6/27/2011	Pre	NA	12.66	12.45	0.21	
		Post		13.24	12.99	0.25	
	6/28/2011	Pre	NA	12.56	12.46	0.10	
		Post		12.85	12.65	0.20	
	6/29/2011	Pre	NA	12.33	12.01	0.32	
		Post		12.91	12.54	0.37	
	6/30/2011	Pre	NA	12.64	12.15	0.49	
		Post		13.17	12.58	0.59	
	7/1/2011	Pre	NA	12.83	12.24	0.59	
		Post		13.37	12.69	0.68	
	7/2/2011	Pre	NA	13.04	12.41	0.63	
		Post		13.57	12.86	0.71	
	7/3/2011	Pre	NA	12.91	12.35	0.56	
		Post		13.27	13.22	0.05	
	7/5/2011	Pre	NA	12.65	12.53	0.12	
		Post		13.02	12.86	0.16	
	7/6/2011	Pre	NA	12.73	12.60	0.13	
		Post		13.33	13.19	0.14	
	7/7/2011	Pre	NA	12.73	12.60	0.13	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		13.34	13.19	0.15	
	7/8/2011	Pre	NA	12.72	12.60	0.12	
		Post		13.07	ND	NA	
	7/9/2011	Pre	NA	12.86	12.74	0.12	
		Post		13.16	12.95	0.21	
	7/10/2011	Pre	NA	12.83	12.69	0.14	
		Post		13.13	13.00	0.13	
	7/11/2011	Pre	NA	12.70	12.64	0.06	
		Post		13.24	13.07	0.17	
	7/12/2011	Pre	NA	12.76	12.66	0.10	
		Post		13.29	13.15	0.14	
	7/13/2011	Pre	NA	12.72	12.38	0.34	
		Post		13.19	13.02	0.17	
	7/14/2011	Pre	NA	12.99	12.86	0.13	
		Post		13.27	13.13	0.14	
	7/15/2011	Pre	NA	12.92	12.81	0.11	
		Post		NG	NA	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		NG	NA	NA	
	7/17/2011	Pre	NA	13.35	13.20	0.15	
		Post		13.82	13.70	0.12	
	7/18/2011	Pre	NA	12.96	ND	NA	
		Post		13.63	13.51	0.12	
	7/19/2011	Pre	NA	13.00	12.90	0.10	
		Post		13.51	13.42	0.09	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.63	13.59	0.04	
	7/21/2011	Pre	NA	13.02	12.91	0.11	
		Post		NG	NG	NA	No data due to site work
B-11	6/24/2011	Pre	NA	13.07	ND	NA	
		Post		13.23	ND	NA	
	6/25/2011	Pre	NA	13.30	ND	NA	
		Post		13.45	ND	NA	
	6/26/2011	Pre	NA	13.43	ND	NA	
		Post		13.55	ND	NA	
	6/27/2011	Pre	NA	13.35	ND	NA	
		Post		13.71	ND	NA	
	6/28/2011	Pre	NA	13.36	ND	NA	
		Post		13.55	ND	NA	
	6/29/2011	Pre	NA	13.11	ND	NA	
		Post		13.43	ND	NA	
	6/30/2011	Pre	NA	13.23	ND	NA	
		Post		13.52	ND	NA	
	7/1/2011	Pre	NA	13.34	ND	NA	
		Post		13.67	ND	NA	
	7/2/2011	Pre	NA	13.46	ND	NA	
		Post		13.76	ND	NA	
	7/3/2011	Pre	NA	13.41	ND	NA	
		Post		13.65	ND	NA	
	7/5/2011	Pre	NA	13.45	ND	NA	
		Post		13.67	ND	NA	
	7/6/2011	Pre	NA	13.51	ND	NA	
		Post		13.88	ND	NA	
	7/7/2011	Pre	NA	13.61	ND	NA	
		Post		13.98	ND	NA	
	7/8/2011	Pre	NA	13.90	ND	NA	
		Post		13.89	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/9/2011	Pre	NA	13.51	ND	NA	
		Post		13.88	ND	NA	
	7/10/2011	Pre	NA	13.56	ND	NA	
		Post		13.86	ND	NA	
	7/11/2011	Pre	NA	13.81	ND	NA	
		Post		13.92	ND	NA	
	7/12/2011	Pre	NA	13.73	ND	NA	
		Post		14.02	ND	NA	
	7/13/2011	Pre	NA	13.79	ND	NA	
		Post		14.04	ND	NA	
	7/14/2011	Pre	NA	14.01	ND	NA	
		Post		14.35	ND	NA	
	7/15/2011	Pre	NA	14.24	ND	NA	
		Post		14.40	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		DRY	ND	NA	
	7/17/2011	Pre	NA	14.38	ND	NA	
		Post		14.89	ND	NA	
	7/18/2011	Pre	NA	14.38	ND	NA	
		Post		14.62	ND	NA	
	7/19/2011	Pre	NA	14.35	ND	NA	
		Post		14.63	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		14.68	ND	NA	
	7/21/2011	Pre	NA	14.39	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-12	6/24/2011	Pre	NA	13.46	ND	NA	
		Post		13.49	ND	NA	
	6/25/2011	Pre	NA	13.80	ND	NA	
		Post		14.61	ND	NA	
	6/26/2011	Pre	NA	14.60	ND	NA	
		Post		14.58	ND	NA	
	6/27/2011	Pre	NA	14.07	ND	NA	
		Post		14.00	ND	NA	
	6/28/2011	Pre	NA	14.59	ND	NA	
		Post		14.65	ND	NA	
	6/29/2011	Pre	NA	13.44	ND	NA	
		Post		14.63	ND	NA	
	6/30/2011	Pre	NA	14.65	ND	NA	
		Post		14.62	ND	NA	
	7/1/2011	Pre	NA	14.62	ND	NA	
		Post		14.66	ND	NA	
	7/2/2011	Pre	NA	15.55	ND	NA	
		Post		13.99	ND	NA	
	7/3/2011	Pre	NA	13.62	ND	NA	
		Post		14.00	ND	NA	
	7/5/2011	Pre	NA	13.69	ND	NA	
		Post		13.96	ND	NA	
	7/6/2011	Pre	NA	14.68	ND	NA	
		Post		14.13	ND	NA	
	7/7/2011	Pre	NA	14.58	ND	NA	
		Post		NG	ND	NA	
	7/8/2011	Pre	NA	15.37	ND	NA	
		Post		14.12	ND	NA	
	7/9/2011	Pre	NA	13.79	ND	NA	
		Post		14.01	ND	NA	
	7/10/2011	Pre	NA	13.70	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		13.98	ND	NA	
	7/11/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	7/12/2011	Pre	NA	NG	ND	NA	
		Post		13.94	ND	NA	
	7/13/2011	Pre	NA	13.89	ND	NA	
		Post		14.10	ND	NA	
	7/14/2011	Pre	NA	14.00	ND	NA	
		Post		14.23	ND	NA	
	7/15/2011	Pre	NA	13.97	ND	NA	
		Post		14.19	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		14.42	ND	NA	
	7/17/2011	Pre	NA	14.34	ND	NA	
		Post		14.30	ND	NA	
	7/18/2011	Pre	NA	14.04	ND	NA	
		Post		14.39	ND	NA	
	7/19/2011	Pre	NA	14.04	ND	NA	
		Post		14.39	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		14.41	ND	NA	
	7/21/2011	Pre	NA	14.05	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-13	6/24/2011	Pre	NA	12.01	ND	NA	
		Post		12.04	11.71	0.33	
	6/25/2011	Pre	NA	11.75	11.49	0.26	
		Post		12.06	12.00	0.06	
	6/26/2011	Pre	Hand-Bail	12.08	12.01	0.07	
		Post		12.12	12.11	0.01	
	6/27/2011	Pre	NA	12.14	12.00	0.14	
		Post		12.34	12.20	0.14	
	6/28/2011	Pre	NA	12.09	12.04	0.05	
		Post		10.90	10.87	0.03	
	6/29/2011	Pre	NA	11.26	11.15	0.11	
		Post		11.49	11.42	0.07	
	6/30/2011	Pre	NA	11.70	11.57	0.13	
		Post		11.83	11.76	0.07	
	7/1/2011	Pre	NA	11.91	11.80	0.11	
		Post		12.15	11.95	0.20	
	7/2/2011	Pre	NA	12.28	11.98	0.30	
		Post		12.48	12.07	0.41	
	7/3/2011	Pre	NA	12.13	11.97	0.16	
		Post		12.20	ND	NA	
	7/5/2011	Pre	NA	12.20	12.10	0.10	
		Post		12.31	12.20	0.11	
	7/6/2011	Pre	NA	12.30	12.18	0.12	
		Post		12.46	12.33	0.13	
	7/7/2011	Pre	NA	12.34	12.21	0.13	
		Post		12.52	12.39	0.13	
	7/8/2011	Pre	NA	12.31	12.15	0.16	
		Post		11.92	ND	NA	
	7/9/2011	Pre	NA	11.88	11.85	0.03	
		Post		12.15	12.06	0.09	
	7/10/2011	Pre	NA	12.33	12.12	0.21	
		Post		12.43	12.12	0.31	
	7/11/2011	Pre	NA	12.46	12.10	0.36	
		Post		12.61	12.26	0.35	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/12/2011	Pre	NA	12.48	12.16	0.32	
		Post		12.64	12.32	0.32	
	7/13/2011	Pre	NA	12.55	12.24	0.31	
		Post		12.70	12.36	0.34	
	7/14/2011	Pre	NA	12.70	12.38	0.32	
		Post		12.73	12.41	0.32	
	7/15/2011	Pre	NA	12.68	12.36	0.32	
		Post		12.82	12.48	0.34	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		12.68	12.57	0.11	
	7/17/2011	Pre	NA	13.15	13.01	0.14	
		Post		12.72	12.61	0.11	
	7/18/2011	Pre	NA	13.02	12.87	0.15	
		Post		12.79	12.67	0.12	
	7/19/2011	Pre	NA	12.82	12.46	0.36	
		Post		13.08	12.53	0.55	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		12.84	12.33	0.51	
	7/21/2011	Pre	NA	12.81	12.36	0.45	
		Post		NG	NG	NA	No data due to site work
B-14	6/24/2011	Pre	NA	11.34	ND	NA	
		Post		11.34	ND	NA	
	6/25/2011	Pre	NA	11.43	ND	NA	
		Post		11.69	ND	NA	
	6/26/2011	Pre	NA	11.64	ND	NA	
		Post		11.71	ND	NA	
	6/27/2011	Pre	NA	11.64	ND	NA	
		Post		11.80	ND	NA	
	6/28/2011	Pre	NA	11.67	ND	NA	
		Post		10.34	ND	NA	
	6/29/2011	Pre	NA	10.77	ND	NA	
		Post		11.03	ND	NA	
	6/30/2011	Pre	NA	11.19	ND	NA	
		Post		11.37	ND	NA	
	7/1/2011	Pre	NA	11.41	ND	NA	
		Post		11.58	ND	NA	
	7/2/2011	Pre	NA	11.67	ND	NA	
		Post		11.73	ND	NA	
	7/3/2011	Pre	NA	11.64	ND	NA	
		Post		11.82	ND	NA	
	7/5/2011	Pre	NA	11.69	ND	NA	
		Post		11.81	ND	NA	
	7/6/2011	Pre	NA	11.80	ND	NA	
		Post		11.93	ND	NA	
	7/7/2011	Pre	NA	11.79	ND	NA	
		Post		11.98	ND	NA	
	7/8/2011	Pre	NA	11.76	ND	NA	
		Post		11.92	ND	NA	
	7/9/2011	Pre	NA	11.41	ND	NA	
		Post		11.62	ND	NA	
	7/10/2011	Pre	NA	11.76	ND	NA	
		Post		11.77	ND	NA	
	7/11/2011	Pre	NA	11.76	ND	NA	
		Post		11.90	ND	NA	
	7/12/2011	Pre	NA	11.81	ND	NA	
		Post		11.98	ND	NA	
	7/13/2011	Pre	NA	11.88	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		12.69	ND	NA	
	7/14/2011	Pre	NA	11.99	ND	NA	
		Post		12.09	ND	NA	
	7/15/2011	Pre	NA	12.01	ND	NA	
		Post		12.13	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		12.24	ND	NA	
	7/17/2011	Pre	NA	12.41	ND	NA	
		Post		12.28	ND	NA	
	7/18/2011	Pre	NA	12.14	ND	NA	
		Post		NG	NA	NA	
	7/19/2011	Pre	NA	12.17	ND	NA	
		Post		12.34	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		12.13	NA	NA	
	7/21/2011	Pre	NA	12.04	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-15	6/24/2011	Pre	NA	11.97	ND	NA	
		Post		11.96	ND	NA	
	6/25/2011	Pre	NA	12.02	ND	NA	
		Post		12.69	ND	NA	
	6/26/2011	Pre	NA	12.25	ND	NA	
		Post		12.54	ND	NA	
	6/27/2011	Pre	NA	NG	ND	NA	
		Post		12.43	ND	NA	
	6/28/2011	Pre	NA	12.32	12.32	0.00	Sheen
		Post		7.41	7.41	0.00	Sheen
	6/29/2011	Pre	NA	11.31	ND	NA	
		Post		11.41	ND	NA	
	6/30/2011	Pre	NA	11.83	ND	NA	
		Post		11.91	ND	NA	
	7/1/2011	Pre	NA	12.04	ND	NA	
		Post		12.08	ND	NA	
	7/2/2011	Pre	NA	12.07	ND	NA	
		Post		12.19	ND	NA	
	7/3/2011	Pre	NA	12.21	ND	NA	
		Post		12.29	ND	NA	
	7/5/2011	Pre	NA	12.26	ND	NA	
		Post		12.30	ND	NA	
	7/6/2011	Pre	NA	12.36	ND	NA	
		Post		12.45	ND	NA	
	7/7/2011	Pre	NA	12.39	ND	NA	
		Post		12.50	ND	NA	
	7/8/2011	Pre	NA	12.44	ND	NA	
		Post		12.56	ND	NA	
	7/9/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	7/10/2011	Pre	NA	12.21	ND	NA	
		Post		12.30	ND	NA	
	7/11/2011	Pre	NA	12.38	ND	NA	
		Post		12.43	ND	NA	
	7/12/2011	Pre	NA	12.49	ND	NA	
		Post		12.61	ND	NA	
	7/13/2011	Pre	NA	12.70	ND	NA	
		Post		12.69	ND	NA	
	7/14/2011	Pre	NA	12.67	ND	NA	
		Post		12.75	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/15/2011	Pre	NA	12.72	ND	NA	
		Post		13.03	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		NG	NA	NA	
	7/17/2011	Pre	NA	13.13	ND	NA	
		Post		Dry	ND	NA	
	7/18/2011	Pre	NA	13.14	ND	NA	
		Post		13.30	ND	NA	
	7/19/2011	Pre	NA	13.22	ND	NA	
		Post		13.29	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		12.80	ND	NA	
	7/21/2011	Pre	NA	12.86	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-16	6/24/2011	Pre	NA	12.77	ND	NA	
		Post		12.80	ND	NA	
	6/25/2011	Pre	NA	12.90	ND	NA	
		Post		13.09	ND	NA	
	6/26/2011	Pre	NA	13.11	ND	NA	
		Post		13.21	ND	NA	
	6/27/2011	Pre	NA	13.07	ND	NA	
		Post		13.26	ND	NA	
	6/28/2011	Pre	NA	13.15	ND	NA	
		Post		12.64	ND	NA	
	6/29/2011	Pre	NA	12.76	ND	NA	
		Post		12.89	ND	NA	
	6/30/2011	Pre	NA	12.81	ND	NA	
		Post		13.05	ND	NA	
	7/1/2011	Pre	NA	13.91	ND	NA	
		Post		13.13	ND	NA	
	7/2/2011	Pre	NA	13.21	ND	NA	
		Post		13.26	ND	NA	
	7/3/2011	Pre	NA	13.05	ND	NA	
		Post		13.30	ND	NA	
	7/5/2011	Pre	NA	13.02	ND	NA	
		Post		13.23	ND	NA	
	7/6/2011	Pre	NA	13.25	ND	NA	
		Post		13.35	ND	NA	
	7/7/2011	Pre	NA	13.10	ND	NA	
		Post		13.40	ND	NA	
	7/8/2011	Pre	NA	13.12	ND	NA	
		Post		13.31	ND	NA	
	7/9/2011	Pre	NA	13.12	ND	NA	
		Post		13.36	ND	NA	
	7/10/2011	Pre	NA	13.48	ND	NA	
		Post		13.37	ND	NA	
	7/11/2011	Pre	NA	13.17	ND	NA	
		Post		13.41	ND	NA	
	7/12/2011	Pre	NA	13.17	ND	NA	
		Post		13.41	ND	NA	
	7/13/2011	Pre	NA	13.22	ND	NA	
		Post		13.45	ND	NA	
	7/14/2011	Pre	NA	13.41	ND	NA	
		Post		13.48	ND	NA	
	7/15/2011	Pre	NA	13.33	ND	NA	
		Post		13.51	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		14.15	ND	NA	
	7/17/2011	Pre	NA	14.08	ND	NA	
		Post		13.65	ND	NA	
	7/18/2011	Pre	NA	13.41	ND	NA	
		Post		13.78	ND	NA	
	7/19/2011	Pre	NA	13.41	ND	NA	
		Post		13.78	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.77	ND	NA	
	7/21/2011	Pre	NA	13.44	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-17	6/24/2011	Pre	NA	10.89	ND	NA	
		Post		11.87	ND	NA	
	6/25/2011	Pre	NA	10.92	ND	NA	
		Post		11.02	ND	NA	
	6/26/2011	Pre	NA	11.01	ND	NA	
		Post		11.08	ND	NA	
	6/27/2011	Pre	NA	11.12	ND	NA	
		Post		11.23	ND	NA	
	6/28/2011	Pre	NA	11.09	ND	NA	
		Post		10.50	ND	NA	
	6/29/2011	Pre	NA	10.52	ND	NA	
		Post		10.61	ND	NA	
	6/30/2011	Pre	NA	10.76	ND	NA	
		Post		10.87	ND	NA	
	7/1/2011	Pre	NA	10.91	ND	NA	
		Post		11.00	ND	NA	
	7/2/2011	Pre	NA	11.04	ND	NA	
		Post		11.12	ND	NA	
	7/3/2011	Pre	NA	11.12	ND	NA	
		Post		11.22	ND	NA	
	7/5/2011	Pre	NA	11.13	ND	NA	
		Post		11.21	ND	NA	
	7/6/2011	Pre	NA	11.21	ND	NA	
		Post		NG	ND	NA	Well collapsed
	7/7/2011	Pre	NA	NG	ND	NA	
		Post		Dry	ND	NA	Well repaired
	7/8/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/9/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	7/10/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/11/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/12/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/13/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/14/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/15/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/16/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/17/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/18/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/19/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		Dry	ND	NA	
	7/21/2011	Pre	NA	Dry	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-18	6/24/2011	Pre	NA	10.49	ND	NA	
		Post		10.48	ND	NA	
	6/25/2011	Pre	NA	10.55	ND	NA	
		Post		10.61	ND	NA	
	6/26/2011	Pre	NA	10.60	ND	NA	
		Post		10.62	ND	NA	
	6/27/2011	Pre	NA	10.61	ND	NA	
		Post		10.71	ND	NA	
	6/28/2011	Pre	NA	10.63	ND	NA	
		Post		10.27	ND	NA	
	6/29/2011	Pre	NA	10.21	ND	NA	
		Post		10.29	ND	NA	
	6/30/2011	Pre	NA	10.38	ND	NA	
		Post		10.46	ND	NA	
	7/1/2011	Pre	NA	10.98	ND	NA	
		Post		10.58	ND	NA	
	7/2/2011	Pre	NA	10.63	ND	NA	
		Post		10.68	ND	NA	
	7/3/2011	Pre	NA	10.65	ND	NA	
		Post		10.69	ND	NA	
	7/5/2011	Pre	NA	10.71	ND	NA	
		Post		10.74	ND	NA	
	7/6/2011	Pre	NA	10.74	ND	NA	
		Post		10.79	ND	NA	
	7/7/2011	Pre	NA	10.77	ND	NA	
		Post		10.86	ND	NA	
	7/8/2011	Pre	NA	10.76	ND	NA	
		Post		10.84	ND	NA	
	7/9/2011	Pre	NA	11.65	ND	NA	
		Post		10.73	ND	NA	
	7/10/2011	Pre	NA	10.70	ND	NA	
		Post		10.80	ND	NA	
	7/11/2011	Pre	NA	10.78	ND	NA	
		Post		10.83	ND	NA	
	7/12/2011	Pre	NA	10.79	ND	NA	
		Post		10.87	ND	NA	
	7/13/2011	Pre	NA	10.88	ND	NA	
		Post		10.89	ND	NA	
	7/14/2011	Pre	NA	10.90	ND	NA	
		Post		10.95	ND	NA	
	7/15/2011	Pre	NA	10.93	ND	NA	
		Post		NG	NA	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		11.11	ND	NA	
	7/17/2011	Pre	NA	11.13	ND	NA	
		Post		Dry	ND	NA	
	7/18/2011	Pre	NA	11.02	ND	NA	
		Post		11.16	ND	NA	
	7/19/2011	Pre	NA	11.03	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		11.18	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		11.21	ND	NA	
	7/21/2011	Pre	NA	11.05	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-19	6/24/2011	Pre	NA	7.03	ND	NA	
		Post		7.19	ND	NA	
	6/25/2011	Pre	NA	7.00	ND	NA	
		Post		7.04	ND	NA	
	6/26/2011	Pre	NA	7.06	ND	NA	
		Post		7.04	ND	NA	
	6/27/2011	Pre	NA	7.10	ND	NA	
		Post		7.02	ND	NA	
	6/28/2011	Pre	NA	7.11	ND	NA	
		Post		6.98	ND	NA	
	6/29/2011	Pre	NA	7.03	ND	NA	
		Post		7.03	ND	NA	
	6/30/2011	Pre	NA	7.05	ND	NA	
		Post		7.05	ND	NA	
	7/1/2011	Pre	NA	7.05	ND	NA	
		Post		7.07	ND	NA	
	7/2/2011	Pre	NA	7.10	ND	NA	
		Post		7.07	ND	NA	
	7/3/2011	Pre	NA	7.08	ND	NA	
		Post		7.20	ND	NA	
	7/5/2011	Pre	NA	7.08	ND	NA	
		Post		7.09	ND	NA	
	7/6/2011	Pre	NA	7.08	ND	NA	
		Post		7.10	ND	NA	
	7/7/2011	Pre	NA	7.14	ND	NA	
		Post		7.11	ND	NA	
	7/8/2011	Pre	NA	7.14	ND	NA	
		Post		7.13	ND	NA	
	7/9/2011	Pre	NA	7.09	ND	NA	
		Post		7.12	ND	NA	
	7/10/2011	Pre	NA	7.04	ND	NA	
		Post		7.03	ND	NA	
	7/11/2011	Pre	NA	NG	ND	NA	
		Post		Dry	ND	NA	
	7/12/2011	Pre	NA	11.59	ND	NA	
		Post		Dry	ND	NA	
	7/13/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/14/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/15/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/16/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/17/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/18/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/19/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		Dry	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	7/21/2011	Pre	NA	Dry	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-20	6/24/2011	Pre	NA	4.36	ND	NA	
		Post		11.76	ND	NA	
	6/25/2011	Pre	NA	10.63	ND	NA	
		Post		10.79	ND	NA	
	6/26/2011	Pre	NA	10.69	ND	NA	
		Post		10.70	ND	NA	
	6/27/2011	Pre	NA	10.48	ND	NA	
		Post		10.64	ND	NA	
	6/28/2011	Pre	NA	10.95	ND	NA	
		Post		12.15	ND	NA	
	6/29/2011	Pre	NA	12.12	ND	NA	
		Post		12.28	ND	NA	
	6/30/2011	Pre	NA	12.22	ND	NA	
		Post		12.42	ND	NA	
	7/1/2011	Pre	NA	12.36	ND	NA	
		Post		12.51	ND	NA	
	7/2/2011	Pre	NA	12.53	ND	NA	
		Post		12.65	ND	NA	
	7/3/2011	Pre	NA	12.44	ND	NA	
		Post		12.69	ND	NA	
	7/5/2011	Pre	NA	12.48	ND	NA	
		Post		12.61	ND	NA	
	7/6/2011	Pre	NA	12.64	ND	NA	
		Post		12.78	ND	NA	
	7/7/2011	Pre	NA	12.65	ND	NA	
		Post		12.84	ND	NA	
	7/8/2011	Pre	NA	12.59	ND	NA	
		Post		12.76	ND	NA	
	7/9/2011	Pre	NA	12.53	ND	NA	
		Post		12.71	ND	NA	
	7/10/2011	Pre	NA	12.58	ND	NA	
		Post		12.78	ND	NA	
	7/11/2011	Pre	NA	12.69	ND	NA	
		Post		12.78	ND	NA	
	7/12/2011	Pre	NA	12.63	ND	NA	
		Post		12.82	ND	NA	
	7/13/2011	Pre	NA	12.71	ND	NA	
		Post		12.83	ND	NA	
	7/14/2011	Pre	NA	12.79	ND	NA	
		Post		12.91	ND	NA	
	7/15/2011	Pre	NA	12.82	ND	NA	
		Post		12.91	ND	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		13.34	ND	NA	
	7/17/2011	Pre	NA	13.30	ND	NA	
		Post		13.08	ND	NA	
	7/18/2011	Pre	NA	12.80	ND	NA	
		Post		13.18	ND	NA	
	7/19/2011	Pre	NA	13.87	ND	NA	
		Post		13.20	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		13.34	ND	NA	
	7/21/2011	Pre	NA	12.81	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-21	6/24/2011	Pre	NA	NG	NG	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		NG	NG	NA	
	6/25/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	6/26/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	6/27/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	6/28/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	6/29/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	6/30/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/1/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/2/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/3/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/5/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/6/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/7/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/8/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/9/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/10/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/11/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/12/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/13/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/13/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/15/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/16/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/17/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/18/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/19/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/20/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	
	7/21/2011	Pre	NA	NG	NG	NA	
		Post		NG	NG	NA	No data due to site work
B-22	6/24/2011	Pre	NA	13.74	13.38	0.36	
		Post		13.27	13.27	0.00	Sheen
	6/25/2011	Pre	Hand-Bail	13.18	12.41	0.77	
		Post		14.00	13.95	0.05	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	6/26/2011	Pre	Hand-Bail	13.82	13.69	0.13	
		Post		13.85	13.73	0.12	
	6/27/2011	Pre	NA	13.35	ND	NA	
		Post		14.28	13.74	0.54	
	6/28/2011	Pre	NA	13.60	13.35	0.25	
		Post		12.66	12.27	0.39	
	6/29/2011	Pre	NA	13.25	12.33	0.92	
		Post		13.71	13.15	0.56	
	6/30/2011	Pre	NA	14.13	12.63	1.50	
		Post		13.73	12.60	1.13	
	7/1/2011	Pre	Hand-Bail	14.93	11.62	3.31	
		Post		13.37	12.52	0.85	
	7/2/2011	Pre	Hand-Bail	13.93	11.41	2.52	
		Post		12.86	12.25	0.61	
	7/3/2011	Pre	NA	NG	NG	NA	
		Post		12.80	12.50	0.30	
	7/5/2011	Pre	Hand-Bail	14.86	12.24	2.62	
		Post		13.76	ND	NA	
	7/6/2011	Pre	Hand-Bail	14.36	11.38	2.98	
		Post		14.17	13.14	NA	
	7/7/2011	Pre	Hand-Bail	14.84	11.35	3.49	
		Post		14.81	13.71	1.10	
	7/8/2011	Pre	Hand-Bail	13.57	11.65	1.92	
		Post		15.04	14.03	1.01	
	7/9/2011	Pre	Hand-Bail	15.26	12.58	2.68	
		Post		15.62	12.58	3.04	
	7/10/2011	Pre	Hand-Bail	14.83	11.97	2.86	
		Post		17.67	12.05	5.62	
	7/11/2011	Pre	Hand-Bail	18.25	11.34	6.91	
		Post		15.34	14.28	1.06	
	7/12/2011	Pre	Hand-Bail	15.33	11.94	3.39	
		Post		14.91	13.82	1.09	
	7/13/2011	Pre	Hand-Bail	14.12	12.06	2.06	
		Post		15.69	14.84	0.85	
	7/14/2011	Pre	Hand-Bail	15.19	12.19	3.00	
		Post		15.54	14.75	0.79	
	7/15/2011	Pre	Hand-Bail	15.22	12.21	3.01	
		Post		NG	NA	NA	
	7/16/2011	Pre	NA	NG	NA	NA	
		Post		NG	NA	NA	
	7/17/2011	Pre	Hand-Bail	17.65	11.85	5.80	
		Post		16.75	14.65	2.10	
	7/18/2011	Pre	Hand-Bail	16.31	12.05	4.26	
		Post		15.75	14.76	0.99	
	7/19/2011	Pre	Hand-Bail	15.64	12.39	3.25	
		Post		15.37	13.93	1.44	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		16.48	15.51	0.97	
	7/21/2011	Pre	Hand-Bail	16.43	12.03	4.40	
		Post		NG	NG	NA	No data due to site work
B-23	6/24/2011	Pre	NA	6.91	ND	NA	
		Post		6.85	ND	NA	
	6/25/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/26/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/27/2011	Pre	NA	Dry	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
		Post		Dry	ND	NA	
	6/28/2011	Pre	NA	6.91	ND	NA	
		Post		6.86	ND	NA	
	6/29/2011	Pre	NA	Dry	ND	NA	
		Post		6.93	ND	NA	
	6/30/2011	Pre	NA	6.92	ND	NA	
		Post		6.94	ND	NA	
	7/1/2011	Pre	NA	6.96	ND	NA	
		Post		6.96	ND	NA	
	7/2/2011	Pre	NA	6.93	ND	NA	
		Post		6.96	ND	NA	
	7/3/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/5/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/6/2011	Pre	NA	6.91	ND	NA	
		Post		6.92	ND	NA	
	7/7/2011	Pre	NA	6.93	ND	NA	
		Post		6.94	ND	NA	
	7/8/2011	Pre	NA	6.93	ND	NA	
		Post		6.94	ND	NA	
	7/9/2011	Pre	NA	6.93	ND	NA	
		Post		6.94	ND	NA	
	7/10/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/11/2011	Pre	NA	6.87	ND	NA	
		Post		6.82	ND	NA	
	7/12/2011	Pre	NA	6.88	ND	NA	
		Post		6.88	ND	NA	
	7/13/2011	Pre	NA	6.89	ND	NA	
		Post		6.89	ND	NA	
	7/14/2011	Pre	NA	6.91	ND	NA	
		Post		6.91	ND	NA	
	7/15/2011	Pre	NA	6.92	ND	NA	
		Post		6.92	ND	NA	
	7/16/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/17/2011	Pre	NA	Dry	ND	NA	
		Post		7.92	ND	NA	
	7/18/2011	Pre	NA	NG	NA	NA	
		Post		6.95	ND	NA	
	7/19/2011	Pre	NA	6.95	ND	NA	
		Post		6.99	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		7.00	ND	NA	
	7/21/2011	Pre	NA	7.00	ND	NA	
		Post		NG	NG	NA	No data due to site work
B-24	6/24/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/25/2011	Pre	NA	NG	ND	NA	
		Post		NG	ND	NA	
	6/26/2011	Pre	NA	Dry	ND	NA	
		Post		NG	ND	NA	
	6/27/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/28/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	

Table 1 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	LPH Thickness	Comments
	6/29/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	6/30/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/1/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/2/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/3/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/5/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/6/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/7/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/8/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/9/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/10/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/11/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/12/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/13/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/14/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/15/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/16/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/17/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/18/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/19/2011	Pre	NA	Dry	ND	NA	
		Post		Dry	ND	NA	
	7/20/2011	Pre	NA	NG	NG	NA	No data due to site work
		Post		Dry	ND	NA	
	7/21/2011	Pre	NA	Dry	ND	NA	
		Post		NG	NG	NA	No data due to site work

LPH = Liquid Phase Hydrocarbon
ND = None Detected
NA = Not Applicable
NG = Not Gauged
NM = Not Measured

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
MW-1	6/13/2011	Pre	NA	9.60	ND	94.56	84.96	NA	NA	NA	
		Post		9.81	ND	94.56	84.75	NA	NA	NA	
	6/14/2011	Pre	NA	9.64	ND	94.56	84.92	NA	NA	NA	
		Post		9.86	ND	94.56	84.70	NA	NA	NA	
	6/15/2011	Pre	NA	9.68	ND	94.56	84.88	NA	NA	NA	
		Post		9.91	ND	94.56	84.65	NA	NA	NA	
	6/16/2011	Pre	NA	9.74	ND	94.56	84.82	NA	NA	NA	
		Post		9.85	ND	94.56	84.71	NA	NA	NA	
	6/17/2011	Pre	NA	9.58	ND	94.56	84.98	NA	NA	NA	
		Post		9.74	ND	94.56	84.82	NA	NA	NA	
	6/18/2011	Pre	NA	9.51	ND	94.56	85.05	NA	NA	NA	
		Post		9.68	ND	94.56	84.88	NA	NA	NA	
	6/19/2011	Pre	NA	9.56	ND	94.56	85.00	NA	NA	NA	
		Post		9.81	ND	94.56	84.75	NA	NA	NA	
	6/20/2011	Pre	NA	9.68	ND	94.56	84.88	NA	NA	NA	
		Post		9.85	ND	94.56	84.71	NA	NA	NA	
	6/21/2011	Pre	NA	9.72	ND	94.56	84.84	NA	NA	NA	
		Post		9.83	ND	94.56	84.73	NA	NA	NA	
	6/22/2011	Pre	NA	9.76	ND	94.56	84.80	NA	NA	NA	
		Post		9.98	ND	94.56	84.58	NA	NA	NA	
	6/23/2011	Pre	NA	9.68	ND	94.56	84.88	NA	NA	NA	
		Post		9.91	ND	94.56	84.65	NA	NA	NA	
	6/24/2011	Pre	NA	9.71	ND	94.56	84.85	NA	NA	NA	
		Post		9.69	ND	94.56	84.87	NA	NA	NA	
	6/25/2011	Pre	NA	9.79	ND	94.56	84.77	NA	NA	NA	
		Post		9.93	ND	94.56	84.63	NA	NA	NA	
	6/26/2011	Pre	NA	9.83	ND	94.56	84.73	NA	NA	NA	
		Post		9.93	ND	94.56	84.63	NA	NA	NA	
	6/27/2011	Pre	NA	9.85	ND	94.56	84.71	NA	NA	NA	
		Post		10.07	ND	94.56	84.49	NA	NA	NA	
	6/28/2011	Pre	NA	9.84	ND	94.56	84.72	NA	NA	NA	
		Post		9.71	ND	94.56	84.85	NA	NA	NA	
	6/29/2011	Pre	NA	9.50	ND	94.56	85.06	NA	NA	NA	
		Post		9.73	ND	94.56	84.83	NA	NA	NA	
	6/30/2011	Pre	NA	9.66	ND	94.56	84.90	NA	NA	NA	
		Post		9.84	ND	94.56	84.72	NA	NA	NA	
	7/1/2011	Pre	NA	9.76	ND	94.56	84.80	NA	NA	NA	
		Post		9.94	ND	94.56	84.62	NA	NA	NA	
	7/2/2011	Pre	NA	9.87	ND	94.56	84.69	NA	NA	NA	
		Post		10.03	ND	94.56	84.53	NA	NA	NA	
	7/3/2011	Pre	NA	9.90	ND	94.56	84.66	NA	NA	NA	
		Post		10.00	ND	94.56	84.56	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/5/2011	Pre	NA	9.91	ND	94.56	84.65	NA	NA	NA	
		Post		10.04	ND	94.56	84.52	NA	NA	NA	
	7/6/2011	Pre	NA	9.94	ND	94.56	84.62	NA	NA	NA	
		Post		10.19	ND	94.56	84.37	NA	NA	NA	
	7/7/2011	Pre	NA	9.99	ND	94.56	84.57	NA	NA	NA	
		Post		10.20	ND	94.56	84.36	NA	NA	NA	
	7/8/2011	Pre	NA	9.99	ND	94.56	84.57	NA	NA	NA	
		Post		10.17	ND	94.56	84.39	NA	NA	NA	
	7/9/2011	Pre	NA	9.99	ND	94.56	84.57	NA	NA	NA	
		Post		10.10	ND	94.56	84.46	NA	NA	NA	
	7/10/2011	Pre	NA	10.01	ND	94.56	84.55	NA	NA	NA	
		Post		10.15	ND	94.56	84.41	NA	NA	NA	
	7/11/2011	Pre	NA	10.03	ND	94.56	84.53	NA	NA	NA	
		Post		10.19	ND	94.56	84.37	NA	NA	NA	
	7/12/2011	Pre	NA	10.03	ND	94.56	84.53	NA	NA	NA	
		Post		10.21	ND	94.56	84.35	NA	NA	NA	
	7/13/2011	Pre	NA	10.10	ND	94.56	84.46	NA	NA	NA	
		Post		10.23	ND	94.56	84.33	NA	NA	NA	
	7/14/2011	Pre	NA	10.13	ND	94.56	84.43	NA	NA	NA	
		Post		10.31	ND	94.56	84.25	NA	NA	NA	
	7/15/2011	Pre	NA	10.18	ND	94.56	84.38	NA	NA	NA	
		Post		10.28	ND	94.56	84.28	NA	NA	NA	
	7/16/2011	Pre	NA	10.20	ND	94.56	84.36	NA	NA	NA	
		Post		10.60	ND	94.56	83.96	NA	NA	NA	
	7/17/2011	Pre	NA	10.36	ND	94.56	84.20	NA	NA	NA	
		Post		10.62	ND	94.56	83.94	NA	NA	NA	
	7/18/2011	Pre	NA	10.25	ND	94.56	84.31	NA	NA	NA	
		Post		10.54	ND	94.56	84.02	NA	NA	NA	
	7/19/2011	Pre	NA	10.26	ND	94.56	84.30	NA	NA	NA	
		Post		10.61	ND	94.56	83.95	NA	NA	NA	
	7/20/2011	Pre	NA	10.25	ND	94.56	84.31	NA	NA	NA	
		Post		10.60	ND	94.56	83.96	NA	NA	NA	
	7/21/2011	Pre	NA	10.28	ND	94.56	84.28	NA	NA	NA	
		Post		NG	NG	94.56	NA	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	10.37	ND	94.56	84.19	NA	NA	NA	
		Post		10.42	ND	94.56	84.14	NA	NA	NA	
MW-2	6/13/2011	Pre	NA	10.92	ND	95.86	84.94	NA	NA	NA	
		Post		11.12	ND	95.86	84.74	NA	NA	NA	
	6/14/2011	Pre	NA	10.96	ND	95.86	84.90	NA	NA	NA	
		Post		11.18	ND	95.86	84.68	NA	NA	NA	
	6/15/2011	Pre	NA	11.00	ND	95.86	84.86	NA	NA	NA	
		Post		11.22	ND	95.86	84.64	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	6/16/2011	Pre	NA	11.05	ND	95.86	84.81	NA	NA	NA	
		Post		11.19	ND	95.86	84.67	NA	NA	NA	
	6/17/2011	Pre	NA	10.91	ND	95.86	84.95	NA	NA	NA	
		Post		11.08	ND	95.86	84.78	NA	NA	NA	
	6/18/2011	Pre	NA	10.85	ND	95.86	85.01	NA	NA	NA	
		Post		11.04	ND	95.86	84.82	NA	NA	NA	
	6/19/2011	Pre	NA	10.89	ND	95.86	84.97	NA	NA	NA	
		Post		11.11	ND	95.86	84.75	NA	NA	NA	
	6/20/2011	Pre	NA	10.99	ND	95.86	84.87	NA	NA	NA	
		Post		11.20	ND	95.86	84.66	NA	NA	NA	
	6/21/2011	Pre	NA	11.00	ND	95.86	84.86	NA	NA	NA	
		Post		11.17	ND	95.86	84.69	NA	NA	NA	
	6/22/2011	Pre	NA	11.08	ND	95.86	84.78	NA	NA	NA	
		Post		11.30	ND	95.86	84.56	NA	NA	NA	
	6/23/2011	Pre	NA	11.13	ND	95.86	84.73	NA	NA	NA	
		Post		11.24	ND	95.86	84.62	NA	NA	NA	
	6/24/2011	Pre	NA	11.01	ND	95.86	84.85	NA	NA	NA	
		Post		11.02	ND	95.86	84.84	NA	NA	NA	
	6/25/2011	Pre	NA	11.10	ND	95.86	84.76	NA	NA	NA	
		Post		11.25	ND	95.86	84.61	NA	NA	NA	
	6/26/2011	Pre	NA	11.16	ND	95.86	84.70	NA	NA	NA	
		Post		11.28	ND	95.86	84.58	NA	NA	NA	
	6/27/2011	Pre	NA	11.17	ND	95.86	84.69	NA	NA	NA	
		Post		11.43	ND	95.86	84.43	NA	NA	NA	
	6/28/2011	Pre	NA	11.17	ND	95.86	84.69	NA	NA	NA	
		Post		11.10	ND	95.86	84.76	NA	NA	NA	
	6/29/2011	Pre	NA	10.87	ND	95.86	84.99	NA	NA	NA	
		Post		11.10	ND	95.86	84.76	NA	NA	NA	
	6/30/2011	Pre	NA	11.01	ND	95.86	84.85	NA	NA	NA	
		Post		11.21	ND	95.86	84.65	NA	NA	NA	
	7/1/2011	Pre	NA	11.09	ND	95.86	84.77	NA	NA	NA	
		Post		11.30	ND	95.86	84.56	NA	NA	NA	
	7/2/2011	Pre	NA	11.19	ND	95.86	84.67	NA	NA	NA	
		Post		11.40	ND	95.86	84.46	NA	NA	NA	
	7/3/2011	Pre	NA	11.17	ND	95.86	84.69	NA	NA	NA	
		Post		11.35	ND	95.86	84.51	NA	NA	NA	
	7/5/2011	Pre	NA	11.74	ND	95.86	84.12	NA	NA	NA	
		Post		11.37	ND	95.86	84.49	NA	NA	NA	
	7/6/2011	Pre	NA	11.29	ND	95.86	84.57	NA	NA	NA	
		Post		11.54	ND	95.86	84.32	NA	NA	NA	
	7/7/2011	Pre	NA	11.33	ND	95.86	84.53	NA	NA	NA	
		Post		11.56	ND	95.86	84.30	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/8/2011	Pre	NA	11.37	ND	95.86	84.49	NA	NA	NA	
		Post		11.52	ND	95.86	84.34	NA	NA	NA	
	7/9/2011	Pre	NA	11.11	ND	95.86	84.75	NA	NA	NA	
		Post		11.42	ND	95.86	84.44	NA	NA	NA	
	7/10/2011	Pre	NA	11.31	ND	95.86	84.55	NA	NA	NA	
		Post		11.52	ND	95.86	84.34	NA	NA	NA	
	7/11/2011	Pre	NA	11.36	ND	95.86	84.50	NA	NA	NA	
		Post		11.54	ND	95.86	84.32	NA	NA	NA	
	7/12/2011	Pre	NA	11.38	ND	95.86	84.48	NA	NA	NA	
		Post		11.59	ND	95.86	84.27	NA	NA	NA	
	7/13/2011	Pre	NA	11.44	ND	95.86	84.42	NA	NA	NA	
		Post		11.59	ND	95.86	84.27	NA	NA	NA	
	7/14/2011	Pre	NA	11.49	ND	95.86	84.37	NA	NA	NA	
		Post		11.68	ND	95.86	84.18	NA	NA	NA	
	7/15/2011	Pre	NA	11.53	ND	95.86	84.33	NA	NA	NA	
		Post		11.65	ND	95.86	84.21	NA	NA	NA	
	7/16/2011	Pre	NA	11.56	ND	95.86	84.30	NA	NA	NA	
		Post		11.97	ND	95.86	83.89	NA	NA	NA	
	7/17/2011	Pre	NA	12.68	ND	95.86	83.18	NA	NA	NA	
		Post		12.31	ND	95.86	83.55	NA	NA	NA	
	7/18/2011	Pre	NA	11.60	ND	95.86	84.26	NA	NA	NA	
		Post		11.95	ND	95.86	83.91	NA	NA	NA	
	7/19/2011	Pre	NA	11.63	ND	95.86	84.23	NA	NA	NA	
		Post		12.06	ND	95.86	83.80	NA	NA	NA	
	7/20/2011	Pre	NA	11.55	ND	95.86	84.31	NA	NA	NA	
		Post		12.03	ND	95.86	83.83	NA	NA	NA	
	7/21/2011	Pre	NA	12.65	ND	95.86	83.21	NA	NA	NA	
		Post		NG	NG	95.86	NA	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	11.71	ND	95.86	84.15	NA	NA	NA	
		Post		11.78	ND	95.86	84.08	NA	NA	NA	
MW-3	6/13/2011	Pre	Vac-Truck	13.65	11.90	97.75	84.10	85.85	85.33	1.75	
		Post		13.14	ND	97.75	84.61	NA	NA	NA	
	6/14/2011	Pre	Vac-Truck	13.00	12.45	97.75	84.75	85.30	85.14	0.55	
		Post		13.61	ND	97.75	84.14	NA	NA	NA	
	6/15/2011	Pre	Vac-Truck	13.01	12.46	97.75	84.74	85.29	85.13	0.55	
		Post		13.15	ND	97.75	84.60	NA	NA	NA	
	6/16/2011	Pre	Vac-Truck	13.08	12.52	97.75	84.67	85.23	85.06	0.56	
		Post		13.02	ND	97.75	84.73	NA	NA	NA	
	6/17/2011	Pre	Vac-Truck	12.76	12.40	97.75	84.99	85.35	85.24	0.36	
		Post		12.87	ND	97.75	84.88	NA	NA	NA	
	6/18/2011	Pre	Vac-Truck	12.69	12.34	97.75	85.06	85.41	85.31	0.35	
		Post		12.70	ND	97.75	85.05	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	6/19/2011	Pre	Vac-Truck	12.76	12.39	97.75	84.99	85.36	85.25	0.37	
		Post		12.98	ND	97.75	84.77	NA	NA	NA	
	6/20/2011	Pre	Vac-Truck	12.90	12.49	97.75	84.85	85.26	85.14	0.41	
		Post		12.84	ND	97.75	84.91	NA	NA	NA	
	6/21/2011	Pre	Vac-Truck	12.71	12.53	97.75	85.04	85.22	85.17	0.18	
		Post		13.25	ND	97.75	84.50	NA	NA	NA	
	6/22/2011	Pre	Vac-Truck	12.93	12.58	97.75	84.82	85.17	85.07	0.35	
		Post		13.01	ND	97.75	84.74	NA	NA	NA	
	6/23/2011	Pre	Vac-Truck	12.86	12.80	97.75	84.89	84.95	84.93	0.06	
		Post		13.29	ND	97.75	84.46	NA	NA	NA	
	6/24/2011	Pre	Vac-Truck	12.95	12.83	97.75	84.80	84.92	84.88	0.12	
		Post		12.80	ND	97.75	84.95	NA	NA	NA	
	6/25/2011	Pre	Vac-Truck	12.70	12.65	97.75	85.05	85.10	85.09	0.05	
		Post		12.90	ND	97.75	84.85	NA	NA	NA	
	6/26/2011	Pre	Vac-Truck	12.88	12.69	97.75	84.87	85.06	85.00	0.19	
		Post		13.08	ND	97.75	84.67	NA	NA	NA	
	6/27/2011	Pre	Vac-Truck	12.87	12.71	97.75	84.88	85.04	84.99	0.16	
		Post		13.46	ND	97.75	84.29	NA	NA	NA	
	6/28/2011	Pre	Vac-Truck	12.92	12.69	97.75	84.83	85.06	84.99	0.23	
		Post		13.41	ND	97.75	84.34	NA	NA	NA	
	6/29/2011	Pre	Vac-Truck	12.53	12.38	97.75	85.22	85.37	85.33	0.15	
		Post		12.93	ND	97.75	84.82	NA	NA	NA	
	6/30/2011	Pre	Vac-Truck	12.79	12.51	97.75	84.96	85.24	85.16	0.28	
		Post		13.10	ND	97.75	84.65	NA	NA	NA	
	7/1/2011	Pre	Vac-Truck	12.88	12.59	97.75	84.87	85.16	85.07	0.29	
		Post		13.13	ND	97.75	84.62	NA	NA	NA	
	7/2/2011	Pre	Vac-Truck	12.94	12.68	97.75	84.81	85.07	84.99	0.26	
		Post		13.29	ND	97.75	84.46	NA	NA	NA	
	7/3/2011	Pre	Vac-Truck	12.95	12.70	97.75	84.80	85.05	84.98	0.25	
		Post		13.09	ND	97.75	84.66	NA	NA	NA	
	7/5/2011	Pre	Vac-Truck	12.99	12.75	97.75	84.76	85.00	84.93	0.24	
		Post		13.10	ND	97.75	84.65	NA	NA	NA	
	7/6/2011	Pre	Vac-Truck	13.01	12.80	97.75	84.74	84.95	84.89	0.21	
		Post		13.43	ND	97.75	84.32	NA	NA	NA	
	7/7/2011	Pre	Vac-Truck	13.09	12.81	97.75	84.66	84.94	84.86	0.28	
		Post		13.33	ND	97.75	84.42	NA	NA	NA	
	7/8/2011	Pre	Vac-Truck	13.07	12.82	97.75	84.68	84.93	84.86	0.25	
		Post		13.38	ND	97.75	84.37	NA	NA	NA	
	7/9/2011	Pre	Vac-Truck	13.69	12.92	97.75	84.06	84.83	84.60	0.77	
		Post		13.16	ND	97.75	84.59	NA	NA	NA	
	7/10/2011	Pre	Vac-Truck	13.05	NG	97.75	84.70	NA	NA	NA	
		Post		13.13	13.05	97.75	84.62	84.70	84.68	0.08	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/11/2011	Pre	Vac-Truck	13.06	12.87	97.75	84.69	84.88	84.82	0.19	
		Post		13.30	ND	97.75	84.45	NA	NA	NA	
	7/12/2011	Pre	Vac-Truck	12.99	12.91	97.75	84.76	84.84	84.82	0.08	
		Post		13.36	ND	97.75	84.39	NA	NA	NA	
	7/13/2011	Pre	Vac-Truck	13.12	12.96	97.75	84.63	84.79	84.74	0.16	
		Post		13.33	ND	97.75	84.42	NA	NA	NA	
	7/14/2011	Pre	Vac-Truck	13.14	13.02	97.75	84.61	84.73	84.69	0.12	
		Post		13.46	ND	97.75	84.29	NA	NA	NA	
	7/15/2011	Pre	Vac-Truck	13.13	13.04	97.75	84.62	84.71	84.68	0.09	
		Post		13.43	ND	97.75	84.32	NA	NA	NA	
	7/16/2011	Pre	Vac-Truck	13.10	13.04	97.75	84.65	84.71	84.69	0.06	
		Post		13.67	ND	97.75	84.08	NA	NA	NA	
	7/17/2011	Pre	Vac-Truck	13.16	13.12	97.75	84.59	84.63	84.62	0.04	
		Post		13.47	ND	97.75	84.28	NA	NA	NA	
	7/18/2011	Pre	Vac-Truck	NG	NG	97.75	NA	NA	NA	NA	
		Post		13.80	ND	97.75	83.95	NA	NA	NA	
	7/19/2011	Pre	NA	13.15	ND	97.75	84.60	NA	NA	NA	
		Post		13.62	ND	97.75	84.13	NA	NA	NA	
	7/20/2011	Pre	NA	13.19	13.10	97.75	84.56	84.65	84.62	0.09	
		Post		13.54	ND	97.75	84.21	NA	NA	NA	
	7/21/2011	Pre	NA	13.16	13.15	97.75	84.59	84.60	84.60	0.01	
		Post		NG	NG	97.75	NA	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	13.21	13.10	97.75	84.54	84.65	84.62	0.11	
		Post		13.31	ND	97.75	84.44	NA	NA	NA	
MW-4	7/16/2011	Pre	NA	12.16	ND	NM	NM	NA	NA	NA	
		Post		12.72	ND	NM	NM	NA	NA	NA	
	7/17/2011	Pre	NA	12.20	ND	NM	NM	NA	NA	NA	
		Post		12.78	ND	NM	NM	NA	NA	NA	
	7/18/2011	Pre	NA	12.49	ND	NM	NM	NA	NA	NA	
		Post		12.54	ND	NM	NM	NA	NA	NA	
	7/19/2011	Pre	NA	12.21	ND	NM	NM	NA	NA	NA	
		Post		12.54	ND	NM	NM	NA	NA	NA	
	7/20/2011	Pre	NA	12.18	ND	NM	NM	NA	NA	NA	
		Post		12.52	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	NA	12.22	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	12.29	ND	NM	NM	NA	NA	NA	
		Post		12.36	ND	NM	NM	NA	NA	NA	
MW-5	7/16/2011	Pre	NA	13.61	ND	NM	NM	NA	NA	NA	
		Post		14.06	ND	NM	NM	NA	NA	NA	
	7/17/2011	Pre	NA	13.65	ND	NM	NM	NA	NA	NA	
		Post		14.17	ND	NM	NM	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/18/2011	Pre	NA	13.71	ND	NM	NM	NA	NA	NA	
		Post		14.10	ND	NM	NM	NA	NA	NA	
	7/19/2011	Pre	NA	13.66	ND	NM	NM	NA	NA	NA	
		Post		14.05	ND	NM	NM	NA	NA	NA	
	7/20/2011	Pre	NA	13.66	ND	NM	NM	NA	NA	NA	
		Post		14.09	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	NA	13.68	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	13.74	ND	NM	NM	NA	NA	NA	
		Post		13.79	ND	NM	NM	NA	NA	NA	
MW-6	7/19/2011	Pre	NA	14.28	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	
	7/20/2011	Pre	NA	14.29	ND	NM	NM	NA	NA	NA	
		Post		14.81	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	NA	14.30	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	14.38	ND	NM	NM	NA	NA	NA	
		Post		14.52	ND	NM	NM	NA	NA	NA	
MW-7	7/20/2011	Pre	NA	13.60	ND	NM	NM	NM	NM	NA	
		Post		13.96	ND	NM	NM	NM	NM	NA	
	7/21/2011	Pre	NA	13.60	ND	NM	NM	NM	NM	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	13.67	ND	NM	NM	NM	NM	NA	
		Post		13.75	ND	NM	NM	NM	NM	NA	
MW-8	7/20/2011	Pre	NA	13.49	ND	NM	NM	NM	NM	NA	
		Post		13.91	ND	NM	NM	NM	NM	NA	
	7/21/2011	Pre	NA	13.52	ND	NM	NM	NM	NM	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	13.59	ND	NM	NM	NM	NM	NA	
		Post		13.68	ND	NM	NM	NM	NM	NA	
RW-1	7/16/2011	Pre	Vac-Truck	12.18	12.10	NM	NM	NM	NM	0.08	
		Post		12.68	ND	NM	NM	NM	NM	NA	
	7/17/2011	Pre	Vac-Truck	12.17	ND	NM	NM	NM	NM	NA	
		Post		12.42	ND	NM	NM	NM	NM	NA	
	7/18/2011	Pre	Vac-Truck	12.16	ND	NM	NM	NM	NM	NA	
		Post		12.78	ND	NM	NM	NM	NM	NA	
	7/19/2011	Pre	Vac-Truck	12.18	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	12.18	12.09	NM	NM	NM	NM	0.09	
		Post		13.08	ND	NM	NM	NM	NM	NA	
	7/21/2011	Pre	Vac-Truck	12.18	12.16	NM	NM	NA	NA	0.02	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/22/2011	Pre	Vac-Truck	12.25	ND	NM	NM	NM	NM	NA	
		Post		12.33	ND	NM	NM	NA	NA	NA	
RW-2	7/16/2011	Pre	Vac-Truck	12.57	12.27	NM	NM	NM	NM	0.30	
		Post		12.96	12.96	NM	NM	NM	NM	0.00	Sheen
	7/17/2011	Pre	Vac-Truck	12.48	12.36	NM	NM	NM	NM	0.12	
		Post		12.75	12.73	NM	NM	NM	NM	0.02	
	7/18/2011	Pre	Vac-Truck	12.48	12.46	NM	NM	NM	NM	0.02	
		Post		13.16	ND	NM	NM	NM	NM	NA	
	7/19/2011	Pre	Vac-Truck	12.44	12.41	NM	NM	NA	NA	0.03	
		Post		NG	NG	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	12.39	12.36	NM	NM	NM	NM	0.03	
		Post		13.21	ND	NM	NM	NM	NM	NA	
	7/21/2011	Pre	Vac-Truck	12.45	12.39	NM	NM	NA	NA	0.06	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	Vac-Truck	12.51	ND	NM	NM	NM	NM	NA	
		Post		12.61	12.58	NM	NM	NA	NA	0.03	
RW-3	7/16/2011	Pre	Vac-Truck	13.68	13.68	NM	NM	NM	NM	0.00	Sheen
		Post		14.15	14.15	NM	NM	NM	NM	0.00	Sheen
	7/17/2011	Pre	Vac-Truck	13.70	ND	NM	NM	NM	NM	NA	
		Post		14.21	ND	NM	NM	NM	NM	NA	
	7/18/2011	Pre	Vac-Truck	13.69	ND	NM	NM	NM	NM	NA	
		Post		14.42	ND	NM	NM	NM	NM	NA	
	7/19/2011	Pre	Vac-Truck	13.71	ND	NM	NM	NA	NA	NA	
		Post		14.86	ND	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	13.69	ND	NM	NM	NM	NM	NA	
		Post		14.89	ND	NM	NM	NM	NM	NA	
	7/21/2011	Pre	Vac-Truck	13.84	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	Vac-Truck	13.80	ND	NM	NM	NM	NM	NA	
		Post		13.88	ND	NM	NM	NA	NA	NA	
RW-4	7/19/2011	Pre	Vac-Truck	13.76	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	13.74	ND	NM	NM	NA	NA	NA	
		Post		14.08	NG	NM	NM	NA	NA	NA	
	7/21/2011	Pre	Vac-Truck	13.77	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	Vac-Truck	13.85	ND	NM	NM	NM	NM	NA	
		Post		13.93	ND	NM	NM	NA	NA	NA	
RW-5	7/19/2011	Pre	Vac-Truck	11.72	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	11.54	ND	NM	NM	NA	NA	NA	
		Post		11.89	NG	NM	NM	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/21/2011	Pre	Vac-Truck	11.65	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	Vac-Truck	11.74	ND	NM	NM	NM	NM	NA	
		Post		11.84	ND	NM	NM	NA	NA	NA	
RW-6	7/19/2011	Pre	Vac-Truck	NG	ND	NM	NM	NA	NA	NA	
		Post		13.42	ND	NM	NM	NA	NA	NA	
	7/20/2011	Pre	Vac-Truck	13.25	ND	NM	NM	NA	NA	NA	
		Post		13.29	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	Vac-Truck	12.64	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	Vac-Truck	12.69	ND	NM	NM	NM	NM	NA	
		Post		12.80	ND	NM	NM	NA	NA	NA	
TP-1	6/13/2011	Pre	NA	9.70	ND	NM	NM	NA	NA	NA	
		Post		9.77	ND	NM	NM	NA	NA	NA	
	6/14/2011	Pre	NA	9.83	ND	NM	NM	NA	NA	NA	
		Post		9.88	ND	NM	NM	NA	NA	NA	
	6/15/2011	Pre	NA	9.92	ND	NM	NM	NA	NA	NA	
		Post		9.96	ND	NM	NM	NA	NA	NA	
	6/16/2011	Pre	NA	10.00	ND	NM	NM	NA	NA	NA	
		Post		10.02	ND	NM	NM	NA	NA	NA	
	6/17/2011	Pre	NA	9.07	ND	NM	NM	NA	NA	NA	
		Post		9.22	ND	NM	NM	NA	NA	NA	
	6/18/2011	Pre	NA	9.11	ND	NM	NM	NA	NA	NA	
		Post		9.23	ND	NM	NM	NA	NA	NA	
	6/19/2011	Pre	NA	9.49	ND	NM	NM	NA	NA	NA	
		Post		9.57	ND	NM	NM	NA	NA	NA	
	6/20/2011	Pre	NA	9.73	ND	NM	NM	NA	NA	NA	
		Post		9.83	ND	NM	NM	NA	NA	NA	
	6/21/2011	Pre	NA	9.75	ND	NM	NM	NA	NA	NA	
		Post		9.84	ND	NM	NM	NA	NA	NA	
	6/22/2011	Pre	NA	9.91	ND	NM	NM	NA	NA	NA	
		Post		9.96	ND	NM	NM	NA	NA	NA	
	6/23/2011	Pre	NA	9.71	ND	NM	NM	NA	NA	NA	
		Post		9.77	ND	NM	NM	NA	NA	NA	
	6/24/2011	Pre	NA	9.58	ND	NM	NM	NA	NA	NA	
		Post		9.61	ND	NM	NM	NA	NA	NA	
	6/25/2011	Pre	NA	9.80	ND	NM	NM	NA	NA	NA	
		Post		9.86	ND	NM	NM	NA	NA	NA	
	6/26/2011	Pre	NA	9.92	ND	NM	NM	NA	NA	NA	
		Post		9.96	ND	NM	NM	NA	NA	NA	
	6/27/2011	Pre	NA	10.03	ND	NM	NM	NA	NA	NA	
		Post		10.08	ND	NM	NM	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	6/28/2011	Pre	NA	10.11	ND	NM	NM	NA	NA	NA	
		Post		7.85	ND	NM	NM	NA	NA	NA	
	6/29/2011	Pre	NA	8.81	ND	NM	NM	NA	NA	NA	
		Post		9.03	ND	NM	NM	NA	NA	NA	
	6/30/2011	Pre	NA	9.44	ND	NM	NM	NA	NA	NA	
		Post		9.54	ND	NM	NM	NA	NA	NA	
	7/1/2011	Pre	NA	10.06	ND	NM	NM	NA	NA	NA	
		Post		10.07	ND	NM	NM	NA	NA	NA	
	7/2/2011	Pre	NA	9.94	ND	NM	NM	NA	NA	NA	
		Post		10.00	ND	NM	NM	NA	NA	NA	
	7/3/2011	Pre	NA	9.74	ND	NM	NM	NA	NA	NA	
		Post		9.83	ND	NM	NM	NA	NA	NA	
	7/5/2011	Pre	NA	10.13	ND	NM	NM	NA	NA	NA	
		Post		10.16	ND	NM	NM	NA	NA	NA	
	7/6/2011	Pre	NA	10.19	ND	NM	NM	NA	NA	NA	
		Post		10.23	ND	NM	NM	NA	NA	NA	
	7/7/2011	Pre	NA	10.26	ND	NM	NM	NA	NA	NA	
		Post		10.28	ND	NM	NM	NA	NA	NA	
	7/8/2011	Pre	NA	10.17	ND	NM	NM	NA	NA	NA	
		Post		10.21	ND	NM	NM	NA	NA	NA	
	7/9/2011	Pre	NA	NG	ND	NM	NM	NA	NA	NA	
		Post		NG	ND	NM	NM	NA	NA	NA	
	7/10/2011	Pre	NA	9.97	ND	NM	NM	NA	NA	NA	
		Post		10.08	ND	NM	NM	NA	NA	NA	
	7/11/2011	Pre	NA	10.13	ND	NM	NM	NA	NA	NA	
		Post		10.18	ND	NM	NM	NA	NA	NA	
	7/12/2011	Pre	NA	10.21	ND	NM	NM	NA	NA	NA	
		Post		10.26	ND	NM	NM	NA	NA	NA	
	7/13/2011	Pre	NA	10.31	ND	NM	NM	NA	NA	NA	
		Post		10.33	ND	NM	NM	NA	NA	NA	
	7/14/2011	Pre	NA	10.37	ND	NM	NM	NA	NA	NA	
		Post		10.40	ND	NM	NM	NA	NA	NA	
	7/15/2011	Pre	NA	10.42	ND	NM	NM	NA	NA	NA	
		Post		10.44	ND	NM	NM	NA	NA	NA	
	7/16/2011	Pre	NA	10.46	ND	NM	NM	NA	NA	NA	
		Post		10.53	ND	NM	NM	NA	NA	NA	
	7/17/2011	Pre	NA	10.55	ND	NM	NM	NA	NA	NA	
		Post		10.61	ND	NM	NM	NA	NA	NA	
	7/18/2011	Pre	NA	10.59	ND	NM	NM	NA	NA	NA	
		Post		10.68	ND	NM	NM	NA	NA	NA	
	7/19/2011	Pre	NA	10.64	ND	NM	NM	NA	NA	NA	
		Post		10.70	ND	NM	NM	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/20/2011	Pre	NA	10.15	ND	NM	NM	NA	NA	NA	
		Post		10.29	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	NA	10.39	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	10.54	ND	NM	NM	NM	NM	NA	
		Post		10.57	ND	NM	NM	NA	NA	NA	
TP-2	6/13/2011	Pre	NA	11.11	ND	NM	NM	NA	NA	NA	
		Post		11.18	ND	NM	NM	NA	NA	NA	
	6/14/2011	Pre	NA	11.22	ND	NM	NM	NA	NA	NA	
		Post		11.27	ND	NM	NM	NA	NA	NA	
	6/15/2011	Pre	NA	11.31	ND	NM	NM	NA	NA	NA	
		Post		11.36	ND	NM	NM	NA	NA	NA	
	6/16/2011	Pre	NA	11.39	ND	NM	NM	NA	NA	NA	
		Post		11.46	ND	NM	NM	NA	NA	NA	
	6/17/2011	Pre	NA	NG	ND	NM	NM	NA	NA	NA	
		Post		NG	ND	NM	NM	NA	NA	NA	
	6/18/2011	Pre	NA	10.17	ND	NM	NM	NA	NA	NA	
		Post		10.28	ND	NM	NM	NA	NA	NA	
	6/19/2011	Pre	NA	10.54	ND	NM	NM	NA	NA	NA	
		Post		10.60	ND	NM	NM	NA	NA	NA	
	6/20/2011	Pre	NA	NG	ND	NM	NM	NA	NA	NA	
		Post		10.87	ND	NM	NM	NA	NA	NA	
	6/21/2011	Pre	NA	10.80	ND	NM	NM	NA	NA	NA	
		Post		10.89	ND	NM	NM	NA	NA	NA	
	6/22/2011	Pre	NA	10.97	ND	NM	NM	NA	NA	NA	
		Post		11.02	ND	NM	NM	NA	NA	NA	
	6/23/2011	Pre	NA	10.76	ND	NM	NM	NA	NA	NA	
		Post		10.83	ND	NM	NM	NA	NA	NA	
	6/24/2011	Pre	NA	10.61	ND	NM	NM	NA	NA	NA	
		Post		10.66	ND	NM	NM	NA	NA	NA	
	6/25/2011	Pre	NA	10.80	ND	NM	NM	NA	NA	NA	
		Post		10.85	ND	NM	NM	NA	NA	NA	
	6/26/2011	Pre	NA	10.97	ND	NM	NM	NA	NA	NA	
		Post		11.01	ND	NM	NM	NA	NA	NA	
	6/27/2011	Pre	NA	11.08	ND	NM	NM	NA	NA	NA	
		Post		11.14	ND	NM	NM	NA	NA	NA	
	6/28/2011	Pre	NA	11.16	ND	NM	NM	NA	NA	NA	
		Post		8.91	ND	NM	NM	NA	NA	NA	
	6/29/2011	Pre	NA	9.88	ND	NM	NM	NA	NA	NA	
		Post		10.08	ND	NM	NM	NA	NA	NA	
	6/30/2011	Pre	NA	10.49	ND	NM	NM	NA	NA	NA	
		Post		10.59	ND	NM	NM	NA	NA	NA	

Table 2 - Pre- and Post-Liquid Phase Hydrocarbon (LPH) Recovery Gauging Summary
Gasoline Fueling Station – Royal Farms No. 96
500 Mechanics Valley Road, North East, Maryland 21901

Well ID	Date	Pre- or Post-LPH Recovery	Recovery Method	Depth to Water	Depth to LPH	TOC Elevation	Water Elevation	LPH Elevation	Corrected Water Elevation	LPH Thickness	Comments
	7/1/2011	Pre	NA	10.81	ND	NM	NM	NA	NA	NA	
		Post		10.87	ND	NM	NM	NA	NA	NA	
	7/2/2011	Pre	NA	10.99	ND	NM	NM	NA	NA	NA	
		Post		11.05	ND	NM	NM	NA	NA	NA	
	7/3/2011	Pre	NA	11.12	ND	NM	NM	NA	NA	NA	
		Post		11.13	ND	NM	NM	NA	NA	NA	
	7/5/2011	Pre	NA	11.18	ND	NM	NM	NA	NA	NA	
		Post		11.21	ND	NM	NM	NA	NA	NA	
	7/6/2011	Pre	NA	11.23	ND	NM	NM	NA	NA	NA	
		Post		11.28	ND	NM	NM	NA	NA	NA	
	7/7/2011	Pre	NA	11.31	ND	NM	NM	NA	NA	NA	
		Post		11.34	ND	NM	NM	NA	NA	NA	
	7/8/2011	Pre	NA	11.22	ND	NM	NM	NA	NA	NA	
		Post		11.26	ND	NM	NM	NA	NA	NA	
	7/9/2011	Pre	NA	NG	ND	NM	NM	NA	NA	NA	
		Post		NG	ND	NM	NM	NA	NA	NA	
	7/10/2011	Pre	NA	10.99	ND	NM	NM	NA	NA	NA	
		Post		11.66	ND	NM	NM	NA	NA	NA	
	7/11/2011	Pre	NA	11.19	ND	NM	NM	NA	NA	NA	
		Post		11.23	ND	NM	NM	NA	NA	NA	
	7/12/2011	Pre	NA	11.24	ND	NM	NM	NA	NA	NA	
		Post		11.31	ND	NM	NM	NA	NA	NA	
	7/13/2011	Pre	NA	11.35	ND	NM	NM	NA	NA	NA	
		Post		11.37	ND	NM	NM	NA	NA	NA	
	7/14/2011	Pre	NA	11.42	ND	NM	NM	NA	NA	NA	
		Post		11.44	ND	NM	NM	NA	NA	NA	
	7/15/2011	Pre	NA	11.48	ND	NM	NM	NA	NA	NA	
		Post		11.5	ND	NM	NM	NA	NA	NA	
	7/16/2011	Pre	NA	11.51	ND	NM	NM	NA	NA	NA	
		Post		11.58	ND	NM	NM	NA	NA	NA	
	7/17/2011	Pre	NA	11.61	ND	NM	NM	NA	NA	NA	
		Post		11.66	ND	NM	NM	NA	NA	NA	
	7/18/2011	Pre	NA	11.64	ND	NM	NM	NA	NA	NA	
		Post		11.72	ND	NM	NM	NA	NA	NA	
	7/19/2011	Pre	NA	11.68	ND	NM	NM	NA	NA	NA	
		Post		11.74	ND	NM	NM	NA	NA	NA	
	7/20/2011	Pre	NA	11.21	ND	NM	NM	NA	NA	NA	
		Post		11.36	ND	NM	NM	NA	NA	NA	
	7/21/2011	Pre	NA	11.46	ND	NM	NM	NA	NA	NA	
		Post		NG	NG	NM	NM	NA	NA	NA	No post data due to site work
	7/22/2011	Pre	NA	11.58	ND	NM	NM	NM	NM	NA	
		Post		11.61	ND	NM	NM	NA	NA	NA	

LPH = Liquid Phase Hydrocarbon
TOC = Top of Casing Elevation
ND = None Detected

Table 3 - Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East MD

Well No.	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
B-1	6/23/2011	3400	7900	1200	7100	19600	BDL	15	NS
B-2	6/22/2011	1400	2100	160	740	4400	BDL	2.4	2.3
B-3	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-4	6/22/2011	70	180	38	200	488	BDL	0.7	BDL
B-5	6/22/2011	6700	8400	320	1340	16760	BDL	36	6.4
B-6	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-7	6/23/2011	7.5	20	5.7	41	74.2	BDL	BDL	BDL
B-8	6/23/2011	16	14	BDL	25	55	BDL	BDL	BDL
B-9	6/23/2011	320	1100	130	490	2040	BDL	2.8	3
B-10	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-11	6/22/2011	17	45	BDL	14.9	76.9	BDL	BDL	BDL
B-12	6/23/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-13	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-14	6/23/2011	1100	5000	1300	11600	19000	BDL	21	8
B-15	6/23/2011	1400	3600	550	2800	8350	BDL	6.1	NS
B-16	6/23/2011	10	270	82	630	992	BDL	1.8	BDL
B-17	6/24/2011	32	BDL	BDL	BDL	32	235	BDL	BDL
B-18	6/24/2011	47	BDL	6.5	5.3	58.8	BDL	BDL	BDL
B-19	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-20	6/24/2011	160	16	19	141	336	220	BDL	BDL
B-21	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-22	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-23	6/24/2011	6000	10200	1200	7300	24700	BDL	8	NS
B-24	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1	6/8/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
MW-2	6/8/2011	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS
Type I and II Aquifers		**5**	**1000**	**700**	**10000**	**NRS**	**20**	**0.047**	**0.047**

TPH GRO and DRO results in parts per million or mg/l
BTEX and MTBE results in parts per billion or ug/l
BDL = Below Detection Limits
B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene
MTBE = Methyl-tert-butyl-ether
TPH GRO = Total Petroleum Hydrocarbons Gasoline Range Organics
TPH DRO = Total Petroleum Hydrocarbons Diesel Range Organics
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 2
NRS = No Regulatory Standard

Table 4 - Soil Boring Analytical Results
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East MD

Sample ID	Date	B	T	E	X	Total BTEX	MTBE	TPH GRO	TPH DRO
B-1 9'	6/16/2011	360	850	210	980	2400	BDL	0.9	BDL
B-2 7'	6/16/2011	42	110	15	77	244	BDL	BDL	BDL
B-3 7'	6/16/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-4 12'	6/16/2011	BDL	BDL	BDL	27	27	BDL	BDL	BDL
B-5 8'	6/17/2011	36	90	12	60	198	BDL	BDL	BDL
B-6 8'	6/17/2011	310	550	90	490	1440	BDL	1.4	22
B-7 20'	6/17/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-8 13'	6/17/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-9 7'	6/17/2011	BDL	3400	3200	15200	21800	BDL	240	63
B-10 6'	6/17/2011	BDL	2400	2200	11200	15800	BDL	64	57
B-10 13'	6/17/2011	620	12000	7200	33600	53420	BDL	106	47
B-11 12'	6/20/2011	BDL	BDL	BDL	18.2	18.2	BDL	BDL	BDL
B-12 20'	6/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-13 10'	6/20/2011	45	590	300	1310	2245	BDL	31	90
B-14 7'	6/20/2011	21	78	16	81	196	BDL	1.5	BDL
B-15 11'	6/20/2011	120	9600	5800	33000	48520	BDL	21	740
B-16 7'	6/20/2011	BDL	18	14	78	110	BDL	0.5	BDL
B-17 20'	6/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-18 7'	6/20/2011	BDL	BDL	BDL	BDL	BDL	BDL	0.6	BDL
B-19 8'	6/21/2011	26	72	11	53	162	BDL	0.6	BDL
B-20 20'	6/21/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-21 20'	6/21/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-22 7'	6/21/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-23 6'	6/21/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
B-24 14'	6/21/2011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Type I and II Aquifers		**52**	**8200**	**10000**	**20000**	**NRS**	**720**	**620**	**620**

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

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

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 - Jun

NRS = No Regulatory Standard

Table 5 - Offsite Potable Well Groundwater Analytical Results
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East MD

Address	Sample ID	Date	B	T	E	X	Total BTEX	MTBE
463 Mechanic Valley Road	PW-463	6/29/2011	BDL	BDL	BDL	BDL	BDL	0.71
475 Mechanic Valley Road	PW-475	6/29/2011	BDL	BDL	BDL	BDL	BDL	1.7
487 Mechanic Valley Road	PW-487	6/14/2011	BDL	BDL	BDL	BDL	BDL	BDL
487 Mechanic Valley Road	PW-487	7/12/2011	1.3	7.4	BDL	2.5	11.2	4.1
493 Mechanic Valley Road	PW-493	6/14/2011	BDL	BDL	BDL	BDL	BDL	3.43
493 Mechanic Valley Road	PW-493	7/12/2011	BDL	BDL	BDL	BDL	BDL	3.8
505 Mechanic Valley Road	PW-505	6/14/2011	BDL	BDL	BDL	BDL	BDL	89.8
505 Mechanic Valley Road	PW-505-Eff	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
505 Mechanic Valley Road	PW-505-Mid2	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
505 Mechanic Valley Road	PW-505-Mid1	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
505 Mechanic Valley Road	PW-505-In	7/12/2011	BDL	BDL	BDL	BDL	BDL	150
513 Mechanic Valley Road	PW-513	6/14/2011	BDL	BDL	BDL	BDL	BDL	82.2
513 Mechanic Valley Road	PW-513-Eff	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
513 Mechanic Valley Road	PW-513-Mid2	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
513 Mechanic Valley Road	PW-513-Mid1	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
513 Mechanic Valley Road	PW-513-In	7/12/2011	BDL	BDL	BDL	BDL	BDL	BDL
10 Montgomery Drive	PW-10-18	6/29/2011	BDL	BDL	BDL	BDL	BDL	BDL
Type I and II Aquifers			**5**	**1000**	**700**	**10000**	**NRS**	**20**

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
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

APPENDIX C

POTABLE WELL SURVEY

ADVANTAGE
ENVIRONMENTAL
CONSULTANTS, LLC.

February 22, 2007

Ms. Jeannette Guzik
Maryland Department of the Environment
Oil Control Program
Montgomery Park
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

Re: **Receptor Survey**
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road
North East, MD
Facility ID No. 13326/MDE OCP Case No. 99-2595-CE
AEC Project # 05-056

Dear Ms. Guzik:

As required in your correspondence dated January 25, 2007, Advantage Environmental Consultants (AEC) has completed the receptor survey tasks associated with the MTBE Emergency Regulations for the above referenced site. As part of this work, AEC has completed a Maryland Department of the Environment (MDE) well database search, plotted the locations on a radius map and conducted a site area survey to verify the well locations. Freedom of Information (FOI) requests were sent to the Cecil County Environmental Health Department and the MDE Water Supply Program on February 19, 2007 to obtain well completion reports for the onsite potable well and other potable wells within ½ mile of the site. As of this date a response has not been received from the county or MDE. Upon receipt of this information, AEC will forward it to your office.

In general, AEC completed the following tasks as part of this work: conduct an MDE database search based on zip codes; plot the queried addresses on a base map (only addresses within the search radius are plotted); field verify the existence of wells at plotted address; conduct a site area reconnaissance for potable wells not on the database; submit a Freedom of Information request to the appropriate county Department of Health and the MDE to obtain well completion reports for the wells identified in the database and the site area visit; and, compile the resultant information.

Attachment A presents a radius map (with key) with the known potable drinking water wells illustrated along with 500 feet, 1000 feet and ½ mile radius contours. The wells shown on the map have been field verified as actually existing and represent both database queried wells and those found during the site area reconnaissance. Attachment B presents the output of the database search which summarizes various information including name, address and well construction information and the field notes taken during the site area reconnaissance.

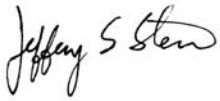
8610 Baltimore Washington Blvd. · Suite 217 · Jessup, MD 20794 · Phone: 301-776-0500 · Fax: 301-776-1123 · Email: mrobertson@aec-env.com

The site area topography indicates that the area slopes to the north and west. Historical onsite groundwater gradients (as measured in the monitoring wells) trend to the west-northwest but are probably influenced by the pumping of the onsite potable well. Based on the results of this effort, AEC has identified 15 potable wells which are down gradient of the site based on topography and groundwater elevation measurements.

If you have any questions regarding this correspondence, please contact me at (301) 776-0500.

Sincerely,

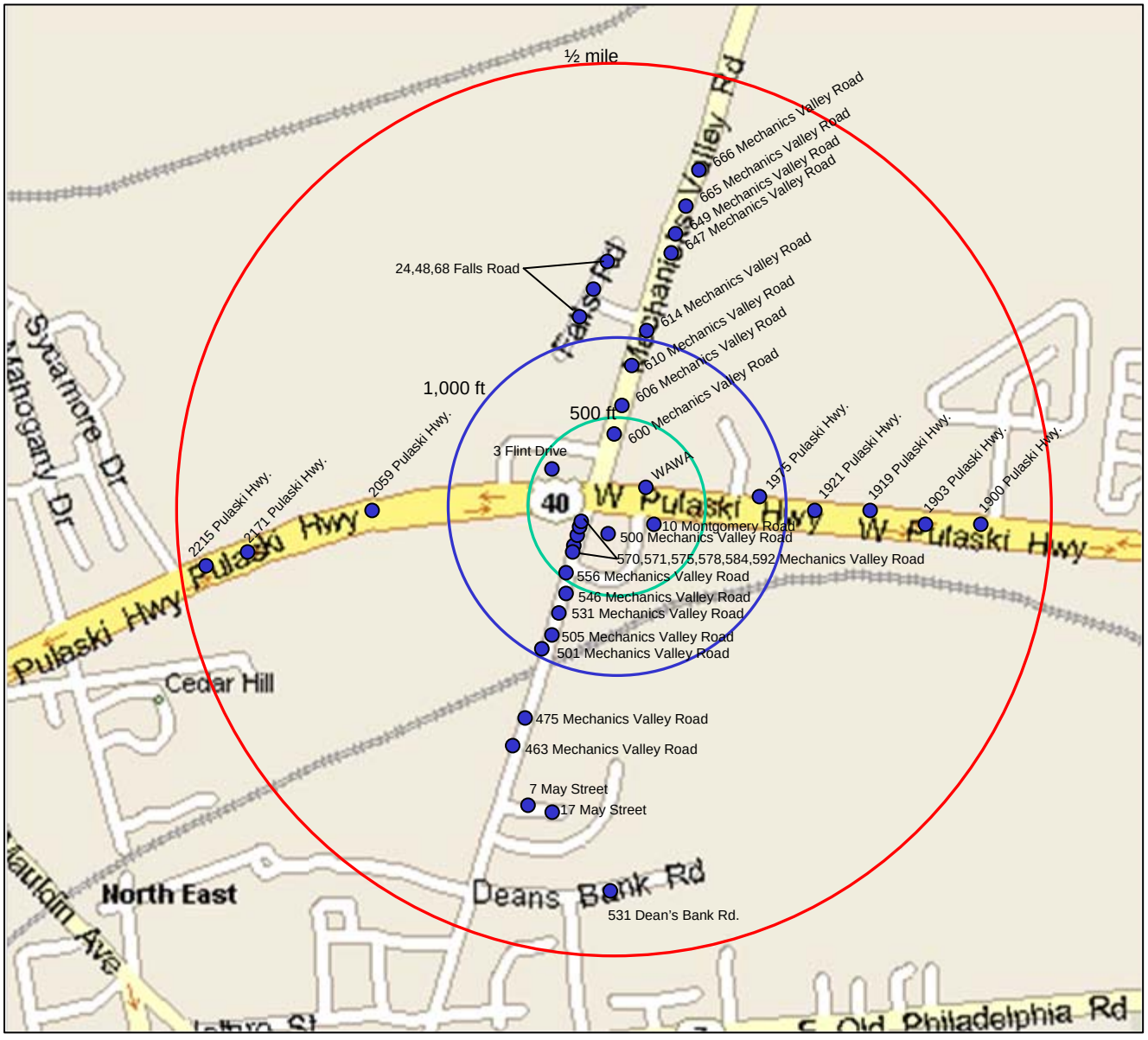
ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.



Jeff Stein
Project Manager

Cc: D. Stambaugh

Attachment A



Legend

- Potable Well
  Source: MDE Potable Well Database

N

Approximate Scale (feet)

0 — 500 — 1,000 — 2,640

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC.

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

Potable Well Location Map
Royal Farms # 96
500 Mechanics Valley Road
North East, Maryland

AEC Project No.:	Report Date:	Drawn By:
05-056	February 2007	JTM

Attachment B

ADDRESST	TOWN	NEAREST_TOWN	COMPLETION_DATE	OWNER_NAME	PERMIT
10 Montgomery Drive					
17 May Street					
1900 PULASKI HWY	NORTH EAST	NORTH EAST	08-Mar-95	TRAURIG CHARLES	CE940593
1903 Pulaski Hwy					
1919 Pulaski					
1921 Pulaski					
1975 Pulaski					
2059 PULASKI HWY	NORTH EAST	NORTH EAST	26-Mar-90	HARRISON JOHN	CE881115
2059 PULASKI HWY	NORTH EAST	NORTH EAST	09-Jan-86	HARRISON JOHN	CE811944
2171 Pulaski					
2215 Pulaski					
2235 Pulaski					
2257 Pulaski					
2257 W PULASKI HWY	NORTH EAST	NORTH EAST	03-Dec-92	CLEMENTS ROGER	CE920140
24 FALLS DR	NORTH EAST	NORTH EAST	27-Jul-85	HOBSON EDWARD L	CE811653
3 FLINT DR	NORTH EAST	NORTH EAST	30-Jul-92	TINA	CE882578
463 Mechanics Valley					
475 MECHANICS VA RD	NORTHEAST	NORTH EAST	14-Dec-83	DEAN THOMAS K	CE810886
48 FALLS RD	NORTHEAST	NORTHEAST	23-Sep-88	HARVEY KENNETH	CE813929
501 MECHANICS VALLEY	NORTH EAST	NORTH EAST	31-Aug-00	HARRISON JOHN	CE944087
505 MECHANICS VALLEY	NORTH EAST	NORTH EAST	03-May-94	EDWARDS RANDY	CE940008
531 Deans Bank Road					
546 Mechanics Valley					
556 Mechanics Valley					
570 Mechanics Valley					
571 Mechanics Valley					
575 DEANS BANK RD	NORTHEAST	NORTHEAST	04-Oct-02	COMEGYS ROBERT	CE945550
578 Mechanics Valley					
584 Mechanics Valley					
584 MECHANICS VALLEY	NORTH EAST	NORTH EAST	15-May-89	JANE	CE880508
592 Mechanics Valley					
600 MECHANICS VLY RD	NORTH EAST	NORTH EAST	14-Oct-80	L	CE733583
606 Mechanics Valley					
610 Mechanics Valley					
614 MECHANICS VALLEY	NORTH EAST	NORTH EAST	08-Aug-90	WHERRY PAULINE	CE881354
614 Mechanics Valley					
647 Mechanics Valley					
647 MECHANICS VLY RD	NORTH EAST	HARRISVILLE	08-Feb-88	MCCOY JR GARY	CE813614
649 Mechanics Valley					
665 MECHANICS VALLEY	NORTH EAST	NORTH EAST	14-Jan-99	HARRISON JOHN	CE942940
665 MECHANICS VALLEY	NORTH EAST	NORTH EAST	11-Oct-93	PAULUS DONALD	CE930091
666 MECHANICS VALLEY	NORTH EAST	NORTH EAST	23-Jul-81	FORTIN, FRANCIS	CE733953
68 FALLS RD	NORTH EAST	NORTH EAST	10-Nov-93	MULLIN RICHARD	CE930137
7 MAY ST	NORTHEAST	FAIR HILL	15-Dec-98	BARBER CHERYL	CE942889
ROUTE 40 & MECHANICS	NORTH EAST	NORTH EAST	28-Jan-03	WAWA INC	CE945918
ROUTE 40 & MECHANICS	NORTH EAST	NORTH EAST	28-Jan-03	WAWA INC	CE945917
ROUTE 40 & MECHANICS	NORTH EAST	NORTH EAST	28-Jan-03	WAWA INC	CE945916

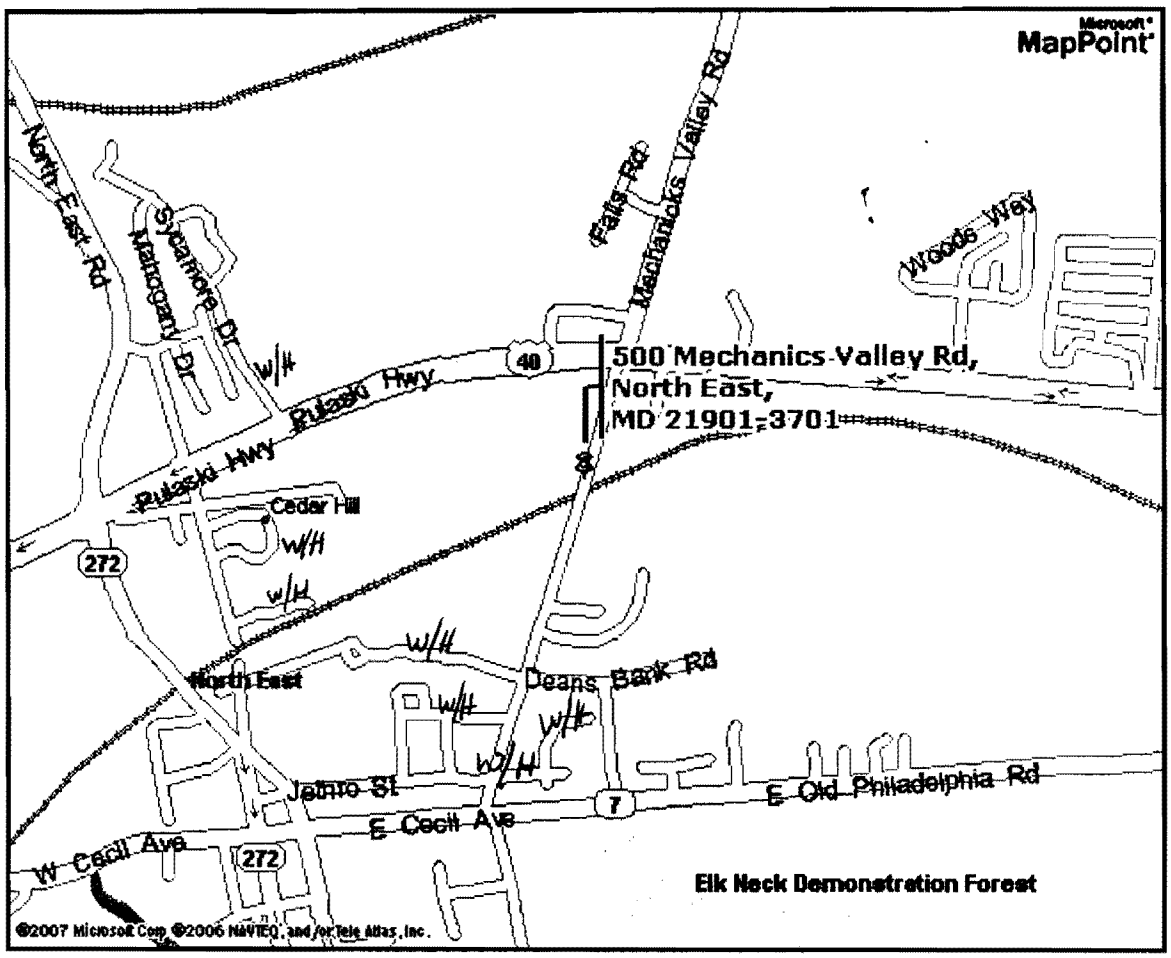
PERMIT	OWNER_NAME	ADDRESS1	CITY	ZIP	TOTAL_DEPTH	M	CASING_TYPE	CASING_DIAM	CASING_DEPTH	SCREEN_TYPE_1	TOP_SCREEN_1	BOTTOM_SCREEN_1
CE940593	TRAURIG CHARLES	1900 PULASKI HWY	NORTH EAST	21901	143	42	ST	6	42	HO	43	143
CE881115	HARRISON JOHN	2059 PULASKI HWY	NORTH EAST	21901	320	77	PL	6	77	HO	77	320
CE811944	HARRISON JOHN	2059 PULASKI HWY	NORTH EAST	21901	163	52	ST	6	52	HO	52	163
CE920140	CLEMENTS ROGER	2257 W PULASKI HWY	NORTH EAST		200	43	PL	6	22	HO	45	200
CE811653	HOBSON EDWARD L	24 FALLS DR	NORTH EAST	21901	400		ST	6	60	HO	60	400
CE882578	TRAVERS MIKE & TINA	3 FLINT DR	NORTH EAST	21901	320	54	ST	6	54	HO	54	320
CE810886	DEAN THOMAS K	RD	NORTHEAST		400	64	ST	6	64	HO	64	400
CE813929	HARVEY KENNETH	48 FALLS RD	NORTHEAST	21901	198	40	PL	4	188	PL	188	198
CE944087	HARRISON JOHN	VALLEY	NORTH EAST	21901	240	79	PL	6	79	HO	79	240
CE940008	EDWARDS RANDY	VALLEY	NORTH EAST	21901	147	40	PL	6	40	HO	40	147
CE945550	COMEGYS ROBERT	575 DEANS BANK RD	NORTHEAST	21901	480	80	ST	6	80	HO	80	480
CE880508	JANE	VALLEY	NORTH EAST		147	42	ST	6	42	HO	42	147
CE733583	JOHNSON JR, CECIL L	RD	NORTH EAST		122	48	ST	6	48	HO	48	122
CE881354	WHERRY PAULINE	VALLEY	NORTH EAST	21901	182	42	PL	6	42	HO	42	182
CE813614	MCCOY JR GARY	RD	NORTH EAST	21901	200	40	ST	6	40	HO	40	200
CE942940	HARRISON JOHN	VALLEY	NORTH EAST	21901	250	34	PL	6	34	HO	34	250
CE930091	PAULUS DONALD	VALLEY	NORTH EAST	21901	300	47	ST	6	47	HO	47	300
CE733953	FORTIN, FRANCIS	VALLEY	NORTH EAST		200	21	ST	6	21	HO	21	200
CE930137	MULLIN RICHARD	68 FALLS RD	NORTH EAST	21901	220	40	ST	6	40	HO	40	220
CE942889	BARBER CHERYL	7 MAY ST	NORTHEAST	21901	320	60	ST	6	60	HO	60	320

2/6/07

msn Maps & Directions RF 96

Featuring Microsoft® MapPoint® Technology

500 Mechanics Valley Rd, North East, MD 21901-3701 Well Recon.



W/H = Water Meters / Hydrants

Falls Road - wells at 48, 57, 64, 63, 79, 32, 16, 8, 23

Well 531 Dean's Bank

10 Montgomery Drive

17 MAy Street

Mechanics Valley
487, 493, 571, 475, 463, 546, 556, 566,
578, 584, 592, 606, 610, 614, 647, 649
Also at the New WA WA goodwe Service

Pulaski Highway
1903, 1919, 1921, 1975, 2171, 2215, 2235, 2257

10 Montgomery Drive	Field Verified					
17 May Street	Field Verified					
1900 PULASKI HWY		NORTH EAST	NORTH EAST	06-Mar-95	TRAURIG CHARLES	CE940593
1903 Pulaski Hwy	Field Verified					
1919 Pulaski	Field Verified					
1921 Pulaski	Field Verified					
1975 Pulaski	Field Verified					
2059 PULASKI HWY		NORTH EAST	NORTH EAST	26-Mar-90	HARRISON JOHN	CE881115
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2257 W PULASKI HWY		NORTH EAST	NORTH EAST	03-Dec-92	CLEMENTS ROGER	CE920140
24 FALLS DR		NORTH EAST	NORTH EAST	27-Jul-85	HOBSON EDWARD L	CE811653
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463 Mechanics Valley						
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584 MECHANICS VALLEY		NORTH EAST	NORTH EAST	15-May-89	JANE	CE880508
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665 MECHANICS VALLEY		NORTH EAST	NORTH EAST	11-Oct-93	PAULUS DONALD	CE930091
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ROUTE 40 & MECHANICS		NORTH EAST	NORTH EAST	28-Jan-03	WAWA INC	CE945917
ROUTE 40 & MECHANICS		NORTH EAST	NORTH EAST	28-Jan-03	WAWA INC	CE945916

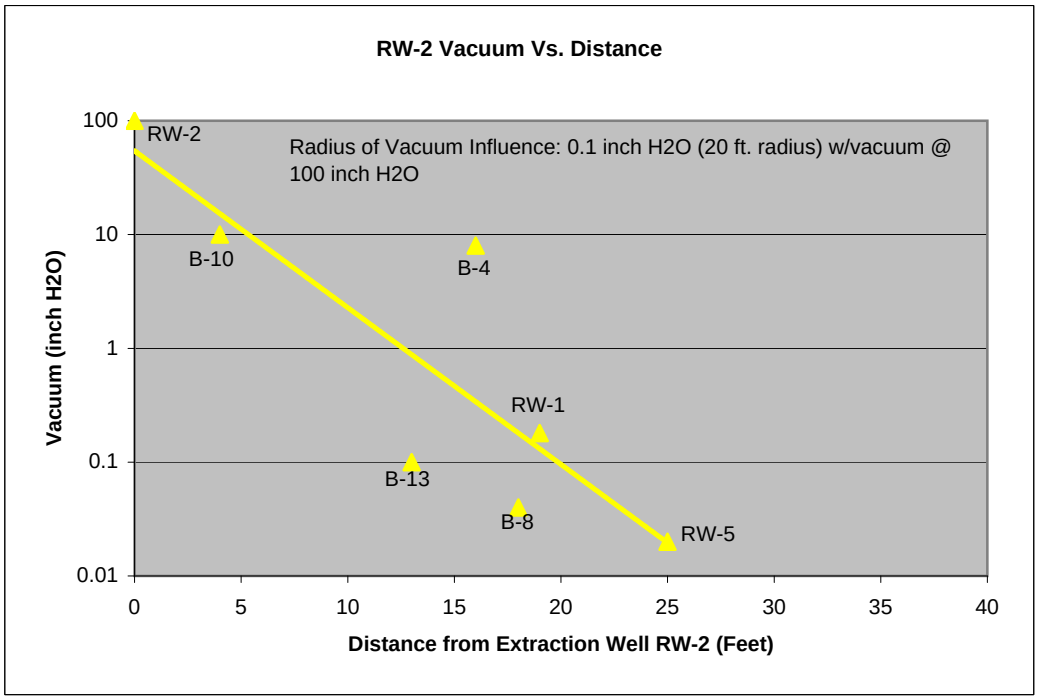
APPENDIX D

EFR PILOT STUDY DATA

Royal Farms Store No. 96
RW-2 Enhanced Fluid Recovery Test
Test Conducted 7-21-2011

Vacuum Readings (Inch H2O)

Time (min)	RW-2	B-10	B-13	B-4	B-8	RW-1	RW-5
1	100	10.00	0.04	8.00	0.04	0.10	0.02
5	100	10.00	0.10	8.00	0.06	0.16	0.02
15	100	10.00	0.10	10.00	0.06	0.20	0.02
25	100	10.00	0.10	10.00	0.06	0.20	0.02
30	100	10.00	0.10	10.00	0.04	0.20	0.02
40	100	10.00	0.10	8.00	0.04	0.16	0.02
50	100	10.00	0.10	8.00	0.04	0.18	0.02
65	100	10.00	0.10	10.00	0.04	0.18	0.02
80	100	10.00	0.10	8.00	0.04	0.18	0.02
Distance	0	4	13	16	18	19	25



Liquid Levels (Feet)

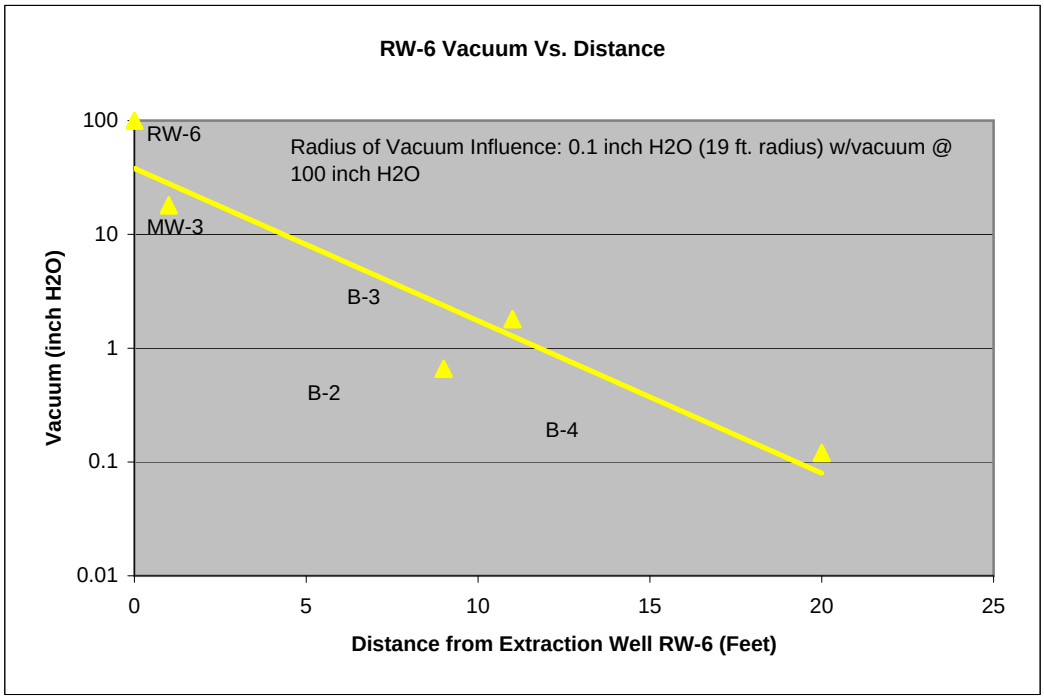
Time	B-10		B-13		B-4		B-8		RW-1		RW-5	
	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP	DTW	DTP
Static	13.02	12.91	12.81	12.36	12.15	NP	12.66	NP	12.18	12.16	11.65	NP
1	13.05	12.97	12.80	12.41	12.15	NP	12.75	NP	12.51	NP	11.74	NP
5	13.07	12.97	12.80	NP	13.70	NP	13.04	NP	12.59	NP	11.96	NP
15	13.10	ND	12.85	NP	13.50	NP	12.97	NP	12.65	NP	11.99	NP
25	13.23	13.11	12.83	NP	13.54	NP	13.20	NP	12.64	NP	12.00	NP
30	13.19	13.14	12.79	NP	13.55	NP	13.00	NP	12.65	NP	12.00	NP
40	13.22	13.18	12.75	NP	13.67	NP	13.10	NP	12.65	NP	12.00	NP
50	13.24	ND	12.75	NP	13.75	NP	12.96	NP	12.64	NP	12.00	NP
65	13.26	13.20	12.75	NP	13.62	NP	13.03	NP	12.65	NP	12.00	NP
80	13.31	13.30	12.75	NP	13.60	NP	13.06	NP	12.66	NP	12.01	NP
Distance	4		13		16		18		19		25	
Drawdown	0.29		0.06		1.45		0.4		0.48		0.36	

NP - No Product Detected.
DTW - Depth to Water
DTP - Depth to Product

Royal Farms Store No. 96
RW-6 Enhanced Fluid Recovery Test
Test Conducted 7-22-2011

Vacuum Readings (Inch H2O)

Time (min)	RW-6	MW-3	B-2	B-3	B-4
1	100	16.00	0.40	1.50	0.04
5	100	16.00	0.64	2.00	0.08
15	100	18.00	0.76	1.80	0.14
25	100	18.00	0.72	1.80	0.10
30	100	18.00	0.60	1.80	0.12
40	100	18.00	0.72	1.80	0.12
50	100	18.00	0.74	1.80	0.12
65	100	18.00	0.66	1.80	0.12
Distance	0	1	9	11	20



Liquid Levels (Feet)

Time	MW-3		B-2		B-3		B-4	
	DTW	**DTP**	**DTW**	**DTP**	**DTW**	**DTP**	**DTW**	**DTP**
Static	13.21	NP	13.55	NP	Dry	NP	13.30	NP
1	13.35	13.31	13.65	12.41	Dry	NP	13.40	NP
5	13.35	NP	13.96	NP	Dry	NP	13.60	NP
15	13.29	NP	13.97	NP	Dry	NP	13.70	NP
25	13.23	NP	13.97	NP	Dry	NP	13.69	NP
30	13.35	NP	13.99	NP	Dry	NP	13.70	NP
40	13.37	NP	13.99	NP	Dry	NP	13.70	NP
50	13.31	NP	14.00	NP	Dry	NP	13.70	NP
65	13.31	NP	13.94	NP	Dry	NP	13.65	NP
Distance	1		9		11		20	
Drawdown	0.10		0.39		---		0.35	

NP - No Product Detected.
DTW - Depth to Water
DTP - Depth to Product