November 11, 2013

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

Re: **Work Plan for Post Building Demolition Subsurface Investigation**
1205 Chesaco Avenue
Gasoline Fueling Station – Royal Farms #64
7950 Pulaski Highway, Baltimore, Maryland 21237
MDE Case No. 10-0339-BA
MDE Facility No. 3975

Dear Mrs. Herman,

Advantage Environmental Consultants, LLC (AEC), on behalf of Royal Farms / Two Farms, Inc. (Royal Farms), is presenting this work plan for subsurface investigation below the basement concrete slab at 1205 Chesaco Avenue. This work will be performed following building demolition which entails dismantling of the structure and backfilling the basement with clean fill. All construction debris will be removed from the site. The basement foundation floor and walls will remain in place to preserve the integrity of the adjacent driveway, retaining wall and remediation system piping infrastructure. An overview of the work to be performed is as follows:

Test Pit Installation and Soil Sampling

Upon completion of demolition activities AEC will perform test pitting using an excavator. The excavator will penetrate the basement's concrete floor slab in at least three locations including near the building's former sump pit, the south-east corner near the active recovery wells and the north-central portion of the structure. The test pits will be advanced to approximately six feet below ground surface (bgs) or the water table which will provide a representative section of soil conditions to near the surface of the system pumping influenced water table. If impacted soil is encountered during the test pit exploration, over excavation will be performed to the extent possible without affecting the structural integrity of the basement sidewalls, which will be left in place. We request that a representative of the Department be on-site during test pit activities so that all parties may consult with the Department regarding additional assessment and/or source removal options. Confirmatory samples will be collected to the extent possible and at the direction of the Department.

An AEC Field Geologist will log the geologic conditions of the test pits and field screen soil samples for volatile organic compounds (VOCs) using a photoionization detector (PID). The field screening will consist of collecting a small portion of soil at 16-inch intervals. The material will be transferred to a zip-lock bag which will be punctured by the PID tip and the reading recorded. The PID will be calibrated prior to use using fresh air (0.0 parts per million [ppm] VOCs) and a known concentration of isobutylene prior to use and the calibration verified daily. The criteria for selecting the soil samples will be based on elevated PID readings or evidence of impact in soil. If no PID readings are encountered, samples will be collected at the bottom of the test pit.

Three VOC samples will be collected and prepared using U.S. Environmental Protection Agency (EPA) Method 5035 via Terracore sampling. The Terracore sampler will be inserted directly into the excavation side wall using a reusable T-handle until the sample chamber is full (approximately 5 to 10 grams of soil). The outside of the sampler will then be wiped clean of any soil or debris. The soil plugs will be flush with the mouth of the sampler and any excess soil that extends beyond the mouth of the sampler removed. The plunger will be seated in the handle top 90° until it was aligned with the slots in the body. The sample cores will then be extruded into one methanol (5 milliliters) preserved 40 milliliter vial, two sodium bisulphate (5 milliliters) preserved 40 milliliter vials and a dry weight jar with a lid. The top and/or threads of the vials will be wiped clean and the lids quickly replaced on the vials.

The soil samples will be submitted for analysis for VOCs, including fuel oxygenates, via EPA Method 8260 and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) via EPA Method 8015B.

Sample labels will be firmly attached to the container side, and the following information legibly and indelibly written on the label: facility name; sample identification; sampling date and time; preservatives added; and, sample collector's initials. After the samples are sealed and labeled, they will be packaged for transport to the analytical laboratory. All soil samples will be hand-delivered to Maryland Spectral Services, Inc. of Baltimore, Maryland under standard chain-of-custody procedures. The following packaging procedures will be followed: samples will be packaged to prevent leakage or vaporization from the containers; samples will be cushioned to avoid breakage; and, ice will be added to the cooler to keep the samples cool.

Infrastructure Protection During Building Demolition

Sub-surface conveyance piping from several remediation system recovery wells to the system compound exists in the driveway immediately south of the 1205 Chesaco Avenue structure. These lines are buried to a depth of approximately 30-inches below existing grade. It is not expected that actual building demolition will affect this infrastructure but AEC will monitor these activities. In the unlikely event that the piping is damaged during demolition, repairs will be made within one week.

Investigation Derived Waste

Investigation derived petroleum impacted soil will be placed on polyethylene plastic and securely covered with polyethylene. Stockpiles will be constructed using three steps: (1) the soil stockpile will be placed on two layers of six-mil-thick sheeting; (2) a layer of six-mil-thick plastic will be placed on stockpiled soil; and (3) the edges of the plastic will be secured to prevent surface water infiltration. The material will be transported and disposed of according to applicable U.S. Department of Transportation, EPA, and MDE regulations.

Post Test Pit Activities

Immediately after completing the test pits it will be necessary to back fill the basement area in order to prevent structural failure of the basement walls and other safety concerns. Based on the results of the test pitting observations and laboratory analytical results AEC will consult with the MDE regarding additional assessment and/or source removal options.

If there are any questions regarding this work plan, please contact AEC at (301) 776-0500.

Sincerely, **Advantage Environmental Consultants**, LLC

Jeffery Stein
Principal

cc: T. Ruszin