



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

January 28, 2019

Mr. Christopher E. Williams  
Environmental Issues Program Manager  
Anne Arundel County Public Schools  
9034 Ft. Smallwood Road  
Pasadena MD 21122

**RE: DIRECT PUSH WORK PLAN APPROVAL**  
**Case No. 2018-0559-AA**  
**Wiley H. Bates Middle School**  
**701 Chase Street, Annapolis**  
**Anne Arundel County, Maryland**  
**Facility I.D. No. 3200**

Dear Mr. Williams:

The Maryland Department of the Environment's (the Department) Oil Control Program (OCP) recently completed a review of the case file for the above-referenced property, including the *Subsurface Investigation Work Plan*, dated December 26, 2018. This case was opened on May 2, 2018 following the report of liquid phase hydrocarbons (LPHs) impacting Spa Creek. Heating oil was discovered within a storm water outfall pipe on school property and a heating oil release was discovered in the school's boiler room. In addition to the two heating oil releases that had occurred in the boiler room between December 21, 2017 and April 27, 2018, research of OCP records revealed that multiple other releases had occurred at this location. Based upon the unknown quantities of fuel released at this site over time, the continued impacts noted at the storm water outfall and the fresh appearance of the oil at both the storm water outfall and upstream within Spa Creek, the OCP required completion of a subsurface investigation to identify the source of the on-going heating oil impacts.

The *Subsurface Investigation Work Plan*, dated December 26, 2018, proposes to install a minimum of 20 direct-push borings to assess and delineate petroleum-impacted soils in the vicinity of the current UST system, the historic UST field, and along the stormwater piping run to the outfall at Spa Creek. The borings will be advanced until evidence of contamination no longer exists, groundwater is reached, or to equipment refusal. Beginning 4 feet below the ground surface (bgs), soil intervals will be logged and screened using a photo-ionization detector (PID). Soil samples are proposed to be collected using EPA Method 5035. Up to two soil samples will be collected from each boring. If groundwater is encountered, temporary wells will be installed and groundwater samples will be collected. A *Limited Subsurface Investigation Report* will be provided when the work is completed. The Department hereby approves the proposed *Work Plan* contingent upon the following modifications:

- 1) Boring locations may be field modified based on the locations of underground utilities. If field conditions in any advanced boring reveal petroleum impact, the Department will require stepping out a minimum of 10 feet and advancing additional borings to complete assessment of the petroleum impacts.
- 2) In order to account for petroleum impacts in shallow utilities and piping runs, continuous cores must be logged and screened for contaminants beginning at the surface instead of beginning at 4 feet bgs as proposed. Include PID readings in the boring logs.

- 3) If field screening results continue to reveal evidence of petroleum impact at the proposed target boring depth, the boring must be extended until field screening data indicate the absence of petroleum impact even if impacts are detected below the groundwater interface. Groundwater elevations are likely high due to the amount of precipitation this past year.
- 4) The Department requires screening of soils with a PID at regular intervals during completion of direct push borings:
  - a. Field screening of the soil cores must be performed utilizing a consistent methodology that will not be adversely affected by site conditions. The use of glass jars or sealable plastic bags to store a portion of the sample material for screening purposes is recommended.
  - b. Soil samples for laboratory analysis must be collected in each boring at the interval exhibiting the highest PID response and potentially from the deepest interval or at the groundwater interface.
  - c. The Department understands and concurs that all soil samples submitted for laboratory analysis will be collected and field preserved in accordance with EPA Method 5035.
  - d. All soil samples submitted for laboratory analysis must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and total petroleum hydrocarbons - diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015B.
- 5) Temporary wells must be installed in all borings where groundwater is encountered to assess for LPH and the collection of groundwater samples. Groundwater samples must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 8260 and TPH-DRO and TPH-GRO using EPA Method 8015. All temporary wells must be properly abandoned following completion of this investigation.
- 6) All petroleum contaminated waste (soil and liquids) generated for this site must be containerized for proper off-site disposal.
- 7) Notify the OCP case manager at least five (5) working days prior to conducting work in order to schedule and to field mark boring locations.
- 8) **Within forty-five (45) days of completing the approved Work Plan activities**, submit the proposed *Limited Subsurface Investigation Report* to the Oil Control Program. The report must include: a brief description of the work conducted; a site map showing the building and boiler room, the UST tank fields, boring locations, stormwater utility corridor, and the location(s) of other pertinent environmental features such as subsurface utilities; sample results in data tables; boring logs with contaminant assessment that includes PID readings; laboratory results reports; disposal receipts; a discussion of the results; and recommendations for further remedial actions proposed based on the findings of this investigation.
- 9) Due to the detection of LPH upstream of the pedestrian bridge crossing Spa Creek, AACPS must inspect Spa Creek in addition to the stormwater outfall for recovery of LPH impacts. Begin to provide hard copy reports on a monthly basis that summarize the conditions of the storm water outfall and Spa Creek during inspections as well as the LPH recovery work conducted (i.e., dates of inspection and recovery, recovery methods, estimate of volume recovered, disposal of liquids skimmed, photo documentation).

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If you have any questions, please contact the case manager, Mr. Michael Edillon, at 410-537-4151 (email: [michael.edillon@maryland.gov](mailto:michael.edillon@maryland.gov)) or me at 410-537-3499 (email: [susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)).

Sincerely,

A handwritten signature in black ink, appearing to read "Susan Bull", with a stylized flourish at the end.

Susan R. Bull, Eastern Region Supervisor  
Remediation and State-Lead Division  
Oil Control Program

ME/nln

cc: Mr. Scott Alexander (Petroleum Management Services)  
Mr. William Dehn (Anne Arundel County Health Dept.)  
Mr. Matthew D. Waters (City of Annapolis)  
Mr. Andrew B. Miller (Chief, Remediation and State-Lead Division, OCP)  
Mr. Christopher H. Ralston (Program Manager, Oil Control Program)  
Ms. Kaley Laleker (Director, Land and Materials Administration)