



October 20, 2021

Lindley Campbell
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Land and Materials Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 620
Baltimore, MD 21230-1720

**Re: Bel Air Station, Harford County, Maryland
MDE Case No. 18-0459HA / 21-0104HA
Subsurface Investigation Report – Aboveground Valve Release**

Dear Ms. Campbell:

Colonial Pipeline Company (Colonial) is submitting this *Subsurface Investigation Report* (SIR) summarizing soil remediation activities in response to an aboveground release of petroleum product from two adjacent valves at the Colonial Bel Air Pump Station (Site) on September 10, 2021. This release is being included in the combined case numbers for the September 2020 Unit 3 Release (21-0104HA) and the historic HA-3 Area (18-0459HA). TRC Environmental Corporation (TRC), on behalf of Colonial, has prepared this SIR as requested by the Maryland Department of Environment (MDE) in a Report of Observation (ROO) dated September 13, 2021. The September 13, 2021 ROO is included as **Attachment 1**.

Per communication with the MDE, this report will satisfy the requirement of the 10-day spill cleanup notification in accordance with Code of Maryland Regulation §26.10.01.03(E) for the referenced release.

Summary of Release and Initial Response

On September 10, 2021, during continuation of post tie-in work for the new drain/purge line system, a small active weep of ultra-low sulfur diesel (ULSD) was observed from the main line block valve and the Station discharge valve. The release was immediately contained utilizing sorbents pads, sorbent booms, and pans. The on-Site Inspector immediately notified the proper Colonial personnel who then made the appropriate internal and agency notifications. Colonial personnel mobilized to the Site to investigate and stop the release. As communicated to the MDE representative on September 13, 2021, the release was located discharging from a nut/bolt on the main line block valve and a seam on the Station discharge valve. Less than 2-gallons of ULSD was released.

During decommissioning of the existing drain/purge line system and construction of the new drain/purge line system, leak detection was temporarily routed to an aboveground containment tank. Due to the tank elevation, product in the leak detection tubing backed into the stem seal containment and resulted in a discharge from the mainline block and Station discharge valves, respectively, at the connection between the yoke tube and hydraulic actuator. When the stem seal leak detection was bled (by slowly opening into a pan) the release stopped. The release was stopped on September 10, 2021. Pending completion and recommissioning of the drain line project, the elevation of the aboveground tanks was adjusted to allow for proper drainage from the valves. Upon completion of the drain line project, the valves were reconnected to the drain line system consistent with the pre-existing conditions.

Summary of Soil Remediation via Excavation

Initial surface soils in the vicinity of the releases exhibited photo-ionization detector (PID) readings ranging from 30 parts per million (ppm) to 300 ppm. Staining of gravel indicated that the release did not extend horizontally from the main line block valve or the Station discharge valve. Remedial excavation of impacted soil around the main line block valve and Station discharge valve was conducted on September 13, 2021 by Atlantic Industrial, Mechanical, and Electrical (AIME) of Baltimore, Maryland at the direction of TRC and Colonial. The excavation was located on the northern and eastern sides of the main line block valve and the southern and eastern sides of the Station discharge valve (where the releases were located). The excavation extended from the main line block valve to the Station discharge valve covering an area of approximately 28-square feet to a depth of approximately 34-inches. The excavation extended laterally out from the valves approximately 19-inches to 26-inches. Excavation extents are shown on **Figure 1**.

A total of approximately 5.7-tons of impacted soil was removed for offsite disposal. Impacted soil was transported by truck to Soil Safe Inc., located in Logan Township, NJ. Note that the impacted soil was transported with additional volumes of soil from the drain/purge line replacement project totaling 21.11-tons, as shown on the disposal manifest. The remedial excavation did not extend to groundwater and thus groundwater was not recovered from this remediation. The soil disposal manifest is included as **Attachment 2**.

Two post-excavation soil samples were collected in the excavation at the direction of the MDE representative. One post-excavation soil sample, PX-Valve 3 (33.5”), was collected at the bottom of the main line block valve portion of the excavation and the second post-excavation soil sample, PX-Dis Valve (34”), was collected from the bottom of the Station discharge valve portion of the excavation. Soil conditions at the bottom of the excavation indicated minimal impact with relatively low PID readings of 10 ppm at the main line block valve portion of the excavation and 4 ppm at the Station discharge portion of the excavation. Soil samples were collected from the 6-inch interval immediately below the excavation bottom via USEPA Method 5035 for analysis of volatile organic compounds (VOCs) including fuel oxygenates and naphthalene, total petroleum hydrocarbons diesel range organics (TPH-DRO), and TPH gasoline range organics (TPH-GRO) for comparison to the MDE non-residential cleanup standards (NRCS). Collected soil samples were placed on ice and transported to Caliber Analytical Services (Caliber) for analyses.

Analytical soil results reported a TPH-DRO concentration of 660 mg/kg at PX-Dis Valve (34”), which exceeds the NRCS of 620 mg/kg. All other contaminants of concern were reported below their respective NRCS or reported no-detectable concentrations for both of the soil samples. The TPH-DRO exceedance at PX-Dis Valve (34”) required additional delineation. Post-excavation soil sample locations and results are shown on **Figure 1**. Soil results are tabulated on **Table 1** and laboratory analytical reports are included in **Attachment 3**.

Supplemental Station Discharge Valve Soil Sample

Due to the TPH-DRO concentration of 660 mg/kg exceeding the NRCS of 620 mg/kg an additional sample was collected to attain vertical delineation of the NRCS. On September 30, 2021, Colonial collected one additional soil sample, PX-Dis Valve (42”), from 3.5 to 4.0-feet. Due to the location of the loop line immediately under the original PX-Dis Valve (34”) sample, the PX-Dis Valve (42”) sample was moved 1.5-feet to the northeast. The sample was collected via USEPA Method 5035 for analysis of VOCs including

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fuel oxygenates and naphthalene, TPH-DRO, and TPH-GRO for comparison to the MDE NRCS. Collected soil samples were placed on ice and transported to Caliber for analyses.

Analytical results reported TPH-DRO at a concentration of 77 mg/kg, below the NRCS of 620 mg/kg. All other contaminants of concern were reported below their respective NRCS or reported no-detectable concentrations. These results confirm vertical delineation of soil impacts from the aboveground valve release.

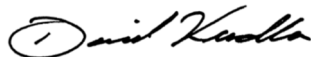
Conclusions

Results of the September 13, 2021 post-excavation soil samples confirm complete removal of impacted soils at the main line block valve and removal of all contaminants of concern with the exception of TPH-DRO at the Station discharge valve. Results of the September 20, 2021 soil sample confirm vertical delineation of soil impacts at the Station discharge valve. Initially, the intent was to excavate to the depth of the supplemental soil sample at the Station discharge valve to confirm complete removal of impacts. However, due this location being at the junction of the main line, loop line, and respective valves and equipment, and the minimal TPH-DRO concentration being left behind (40 mg/kg over the NRCS) it is not feasible to conduct additional excavation without risk to the pipeline infrastructure.

If you have questions regarding the SIR amendment, please contact Stan Carpenter at 856-381-4683 or me at 410-970-2150.

Sincerely,

TRC Environmental Corporation



David Kudla
Project Manager

Table 1 – Summary of Post Excavation Soil Analytical Results

Figure 1 – Above Ground Valve Release Excavation and Soil Sample Locations – September 2021

Attachment 1 – September 13, 2021 ROO

Attachment 2 – Soil Disposal Manifest

Attachment 3 – Laboratory Analytical Reports

cc: S. Bull – Maryland Department of the Environment
S. Carpenter – Colonial Pipeline Company
R. Shenk – Colonial Pipeline Company
T. Garvey – Colonial Pipeline Company

TABLE 1

FIGURE 1

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ATTACHMENT 1

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ATTACHMENT 2

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ATTACHMENT 3