MARYLAND DEPARTMENT OF THE ENVIRONMENT
Land and Materials Administration · Oil Control Program
1800 Washington Boulevard · Suite 620 · Baltimore Maryland 21230-1719
410-537-3442 · 800-633-6101 x3442· 410-537-3092 (fax) · www.mde.maryland.gov

Report of Observations

Type of Observations: Site investigation	**Date:** 12-18-2021
Site/Facility Name: DM Bowman	**Facility ID #:**
Address: 6816 English Muffin Way	**Case #:** 22-0276FR
City / County: Frederick/Frederick	**Permit #:**

Remarks:
On this date, OCP geologist Jim Richmond and Division Chief Andrew Miller were on-site with personnel from Adams Engineering and Environmental, Dark Horse Enterprises, and Earth Matters (licensed well driller). The referenced personnel were on-site to complete the installation of subsurface borings as part of the investigation into the reported release of more than 8,600 gallons of diesel fuel at this commercial property. The release occurred when a contractor (Day and Sons, Inc.) that was conducting horizontal drilling on the referenced property damaged the cathodically protected steel product piping (supply and return) that runs between the 20,000-gallon diesel fuel UST, located on the west side of the property, and the dispenser islands on the east side of the property. The piping is located approximately 10 feet south of the main entrance to the building and at a depth of approximately 4.5 feet below the ground surface (bgs). The purpose of the site visit was to observe the installation of subsurface borings in the area of the broken product piping to initially evaluate the horizontal and vertical extent of the suspected petroleum contamination.

On 12-17-21, several test pits were excavated (this writer was not on-site) in the area of the release including the exposure of the broken product piping with the horizontal drill visible (picture taken by this writer on 12/18/21). An area near to the drill rig was excavated (picture 12/18/21). An area near to the electrical transformer has also been excavated and exposing the bit of the horizontal drill (picture 12-18-21). The areas of excavation were generally completed to depths ranging from 3 to 5 feet bgs. This writer did not observe any liquid phase hydrocarbons in the referenced areas of excavation. This writer noticed a slight petroleum odor in the excavation exposing the damaged product piping/horizontal drill rod. **The depth of the damage piping was measured at 4.5 feet bgs on 12/18/21.**

On 12-18-21, this writer was on-site while Earth Matters personnel utilized an auger rig to install 4 subsurface boring around the perimeter of the area where the damaged product piping was located. The locations of the borings can be seen on the attached photo using the arrows added by this writer. Also on this date, OCP personnel checked the tank field monitoring pipes that are associated with the 4 underground storage tanks (UST) systems that are currently installed at this facility- each UST has one associated tank field monitoring pipe. A flashlight was used to observe the interior of each of the tank field pipes. Neither groundwater nor liquid phase hydrocarbons were observed in any of the 4 tank field monitoring pipes on 12-18-21. The Compliance Division will follow up regarding the condition of the tank field pipes.

Borings 1 through 4:

Boring 1- installed approximately 8 feet to the south of the area of the damaged piping, was completed to a depth of approximately 10 feet bgs. Split spoon sampling was completed at 2 foot intervals. The soil profile was a reddish brown sand that gradually graded to being intersperse with clay and finally weathered rock (limestone) at 10 feet bgs. The boring terminated at 10 feet bgs as the intent was to evaluate the generally shallow soil profile prior to switching the rig over to air rotary drilling method to explore the deeper rock zone. Neither groundwater nor liquid phase hydrocarbons were observed in Boring 1 and the PID response was minor.

Boring 2 was installed approximately 10 feet to the west of the damaged piping. Using the auger rig, Boring 2 was completed to a depth of 8 feet bgs. The soil profile was a reddish brown sand that gradually graded to being intersperse with clay and finally weathered rock (limestone) at 8 feet bgs. The boring terminated at 8 feet bgs. Neither groundwater nor liquid phase hydrocarbons were observed in Boring 2 and the max PID response was 1.8 metered units at the 6 to 8 foot interval.

Boring 3 was installed approximately 8 feet to the east of the damaged piping. Using the auger rig, Boring 3 was completed to a depth of approximately 2 feet bgs. Weathered rock (limestone) was encountered almost immediately in Boring 3. The boring terminated at approximately 2 feet bgs. Neither groundwater nor liquid phase hydrocarbons were observed in Boring 3.

Boring 4 was installed approximately 8 feet to the northeast of the damaged piping. Using the auger rig, Boring 4 was completed to a depth of approximately 6 feet bgs. The soil profile was generally weathered rock (limestone) almost immediately below the several inches of reddish brown sand/soil. The initial boring terminated at 6 feet bgs. Neither groundwater nor liquid phase hydrocarbons were observed in Boring 4 in the 0 to 6 foot interval. It was decided to further investigate the vertical extent of petroleum impact and Earth Matters personnel switched the rig over to air rotary capability. Using air rotary, Boring 4 was extended to a depth of 23 feet 7 inches bgs (measured). The lithology of Boring 4 was limestone. Prior to leaving the site on 12/18/21, this writer used a flashlight to observe groundwater entering Boring 4- near to the bottom. Earth Matters personnel gauged approximately 6 inches of water in Boring 4 on 12/18/21. There was no evidence of liquid phase hydrocarbons observed in Boring 4 on this date. A petroleum odor was noticeable in the water when the interface probe was removed. Boring 4 was left as an open borehole and the area secured. **OCP personnel will return to the site on Monday December 20, 2021 to gauge Boring 4 to check the depth to water/depth to product (if encountered).**

Requirements:

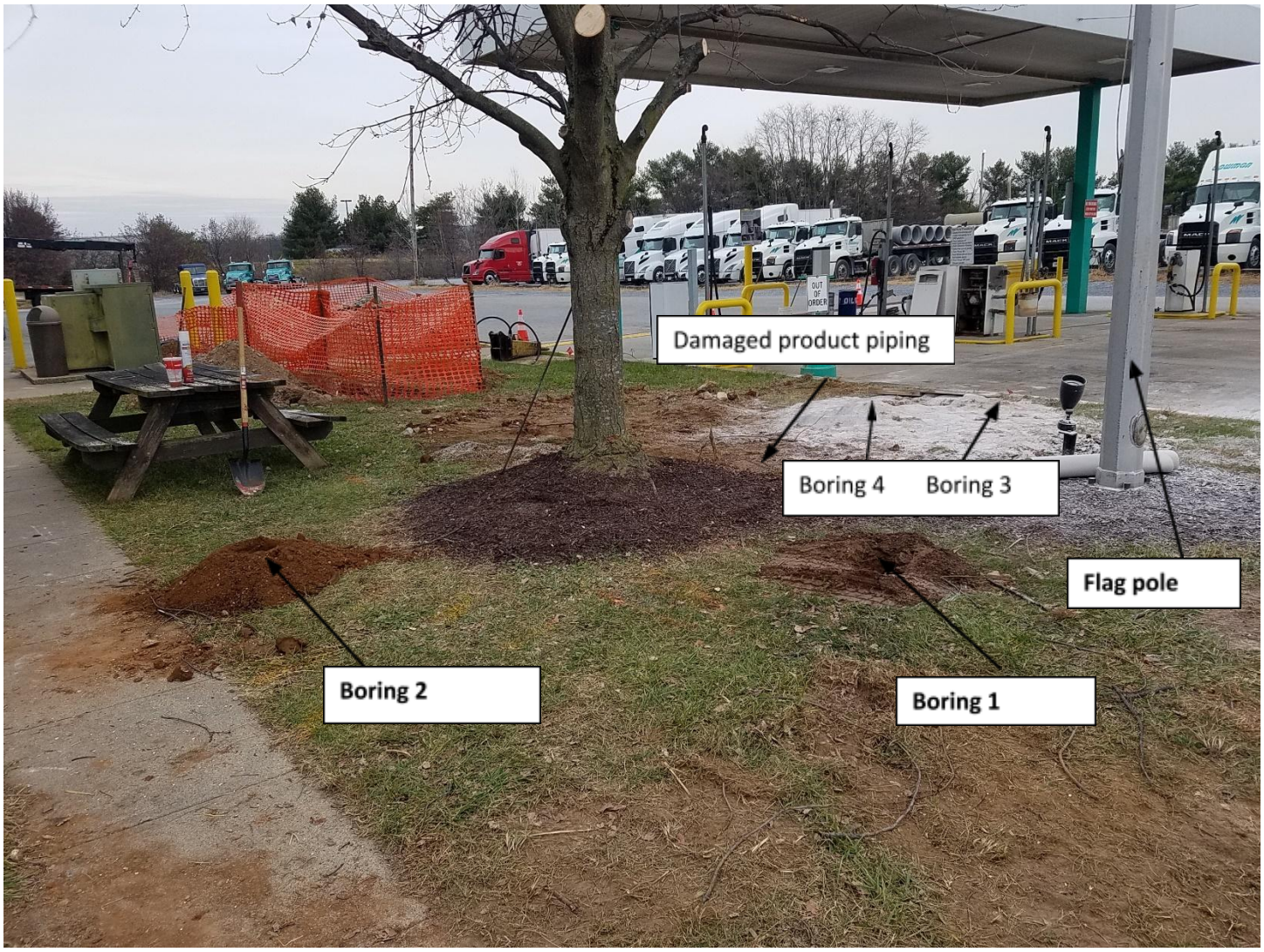
1. The horizontal drilling equipment remains on-site as of 12/18/21. OCP personnel must be on-site to observe the removal of the horizontal drilling rod.

2. The product piping from the dispensers to the diesel fuel UST will likely need to be replaced. OCP personnel must be on-site to observe the excavation of the diesel fuel product piping to determine if there is evidence of a release at other locations along the piping run.

3. Continue to coordinate with the OCP Compliance Division pertaining to any directives regarding the operation and maintenance of the active UST systems at this location.

DM Bowman, 6816 English Muffin Way, Frederick- View looking north towards flagpole behind which is the excavation to expose the damaged diesel fuel product piping (running left/west to the UST and running right/east to the dispenser). Exposed bit of the horizontal drill rod is behind the flagpole near to the yellow bollards (towards large truck) in background. No visible or olfactory evidence of a petroleum release at this area of excavation on 12-18-21.Jim Richmond 12-18-21

DM Bowman, 6816 English Muffin Way, Frederick- View looking south towards English Muffin Way and the machine end of the horizontal drilling equipment. No visible or olfactory evidence of a petroleum release at this area of excavation on 12-18-21. Jim Richmond 12-18-21



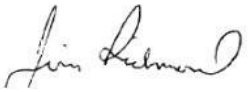
DM Bowman, 6816 English Muffin Way, Frederick- View looking north towards dispenser area No visible or olfactory evidence of a petroleum release with the exception of petroleum odors in groundwater in Boring 4 and in the open excavation that exposed the damaged product piping. Jim Richmond 12-18-21

DM Bowman, 6816 English Muffin Way, Frederick- View looking at the exposed damaged product piping adjacent to the horizontal drilling rod at a depth of approximately 4.5 feet bgs. Olfactory evidence of a petroleum release noted on 12-18-21- no liquid phase hydrocarbons observed. Jim Richmond 12-18-21

DM Bowman, 6816 English Muffin Way, Frederick- View looking generally south – this is the bit of the horizontal drill that is exposed near to the electrical utility box. No visible or olfactory evidence of a petroleum release at this area of excavation on 12-18-21. The limestone rock is visible on the left side of photo.
Jim Richmond 12-18-21

NOTES

- Report the following conditions to MDE immediately, but not later than 2 hours after detection, at **410-537-3442** during normal business hours, or to the Emergency Response Division hotline at **800-633-4686**:
  - An oil spill or discharge
  - If a storage system fails a test for tightness
  - If a storage system is determined to be leaking
  - If there exists evidence of a discharge
  - Two consecutive inconclusive tests
  - Presence of liquid phase hydrocarbons
- Reports should **not** be made via voice messages to OCP case managers.
- Operating without a permit or in violation of a permit, regulation, or law may result in the assessment of civil or administrative penalties and or other legal sanctions.

MDE Representative: Jim Richmond 410-537-3337	**Report Recipient (print full name):**
Signature: 	**Signature:**
Date: 12/18/2021	**Date:**