



September 29, 2021

Lindley Campbell
Geologist, Oil Control Program
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 Amendment – September 2020 Unit 3 Release
Supplemental Drain/Purge Line Excavation Soil Sampling – Pumping Unit 2 and Unit 3**

Dear Ms. Campbell:

Colonial Pipeline Company (Colonial) previously submitted a *Subsurface Investigation Report* in November 2020 (November 2020 SIR) summarizing activities conducted to remediate a release of petroleum product at the Colonial Bel Air Pump Station (Site) discovered on September 8, 2020. The release was located on the 6-inch drain/purge line beneath the station loop near Pumping Unit 3 (Unit 3 Release) and assigned case number 21-0104HA by the Maryland Department of Environment (MDE). As noted in the November 2020 SIR, due to the vicinity of the Unit 3 Release (21-0104HA) to the historic HA-3 Area (18-0459HA), ongoing remedial efforts will be expanded to include both.

As requested by the Maryland Department of Environment (MDE) in a Report of Observation (ROO) dated August 25, 2021, TRC Environmental Corporation (TRC), on behalf of Colonial, has prepared this SIR Amendment to present the results of additional soil sampling in the Unit 2 and Unit 3 excavation areas to achieve vertical delineation of soil contamination. The August 25, 2021 ROO is included as **Attachment 1**.

Summary of Initial Investigation and Remediation Activities – September 2020

As detailed in the November 2020 SIR, during preparations to remove and replace the pumping loop check valve between the suction and discharge sides of Unit 2 Pump, a sheen was observed on water in the Unit 2 check valve excavation on September 8, 2020. The on-site crews checked the valve observation ports throughout the Site, and free product was observed and measured in the valve observation ports adjacent to Unit 3 Pump. Excavation was initiated in the vicinity of Unit 3 Pump and the release point on the drain line was identified on September 10, 2020 and repaired on September 11, 2020. The Unit 3 release was within the footprint of areas previously excavated for the storm water drain line remediation associated with the 2018 release and subsequent excavations for the pumping loop recoat maintenance project. Because the drain line is the deepest piping at the Site, the Unit 3 excavation extended the depth of soil excavated for off-site recycling.

Initial response activities contained impacts from the Unit 3 Release to its immediate surrounding. Initial response activities recovered approximately 477-gallons of product and approximately 133-tons of soil was removed to locate the release point.

Excavation of soil impacted by the Unit 3 Release occurred in the vicinity of Unit 3, along the 6-inch drain/purge line between Unit 3 and Unit 2, and around the Unit 2 valve. The extent and depth of excavation was limited due to worker safety in the shored excavation and structural limitations associated with pipeline infrastructure. The remedial excavation resulted in a total of 320-tons of soil removed for off-site disposal. Post-Excavation soil samples have indicated that ethylbenzene, naphthalene, total petroleum hydrocarbons – diesel range organics (TPH-DRO) and total petroleum hydrocarbons – gasoline range organics (TPH-GRO) concentrations exceeding their respective non-residential cleanup standards (NRCS) remain in the source area. No other constituents were reported above their NRCS. During initial response and remedial excavation efforts, approximately 10,259-gallons of water (storm water and groundwater) was recovered to manage water and remove impacted water from areas of the excavation. Recovered water was transported off-Site for disposal at Triumvirate.

Soil samples collected from hand auger borings HA-24, HA-25, and HA-28 indicate the soil impacts are not present southeast of Unit 3 along the main pipeline loop and south of Unit 3 at the loop road. Groundwater samples collected at MW-2 and MW-4, downgradient of the Unit 3 release have reported concentrations less than or equal to previous July 2020 results. Deeper soil samples collected at 14.5 to 15.0-feet at RW-7, RW-8, and RW-9 indicates vertical delineation in the source area (being both the historic HA-3 area and the September 2020 release). The locations of HA-24, HA-25, HA-28 and the monitoring and recovery wells are shown on **Figure 1**.

Supplemental Drain/Purge Line Soil Samples

Due to the condition of the drain/purge line in the area of the Unit 3 Release, Colonial decided to replace the entire drain/purge line along its path to the sump. This process required additional excavation throughout the yard and deepening the excavations at Unit 2 and Unit 3 to facilitate the installation of the new drain/purge line. Since the Unit 2 and Unit 3 excavations were deepened, Colonial conducted supplemental soil sampling on August 25, 2021. The goal of the supplemental sampling was to attain vertical delineation of soil impacts within the source area of the combined Unit 3 Release and HA-3 Area soil contaminant plume.

As noted in Section 3.2 and Section 3.3; Table 1 and Table 2; and Figure 4 and Figure 5 of the November 2020 SIR, exceedances of the MDE NRCS were reported in post-excavation soil samples collected in the Unit 2 and Unit 3 excavations. Soil samples exceeded the MDE NRCS for ethylbenzene, naphthalene, TPH-DRO, and TPH-GRO in the Unit 2 excavation at depths ranging from 6.5-feet to 7.0-feet and in the Unit 3 excavation at depths ranging from 7.0-feet to 7.5-feet. To evaluate vertical soil conditions at each excavation, samples were collected at depths ranging from 9.0-feet to 9.5-feet for analysis of volatile organic compounds (VOCs), fuel oxygenates, naphthalene, TPH-DRO, and TPH-GRO, as requested by the MDE in the ROO dated August 25, 2021. Sample locations were chosen based on previous post-excavation sample results and field adjusted based on accessibility within the excavation and sufficiently dewatered areas. Final sample locations that provided coverage of the excavation areas for vertical delineation was discussed with and approved by the MDE on-site representative. Two soil samples were collected from the bottom of the Unit 2 excavation, two soil samples were collected from the bottom of the Unit 3 excavation, and one soil sample was collected in the trench connecting the Unit 2 and Unit 3 excavations. Sample locations are presented on **Figure 1**.

September 29, 2021

Colonial Pipeline Company – Bel Air Station

Subsurface Investigation Amendment – Drain/Purge Line Sampling

Soil samples were collected via hand auger and screened with a photoionization detector (PID) to evaluate impact. Samples were promptly transferred into pre-preserved, laboratory provided bottle ware, and placed in a cooler on ice. Appropriate chain of custody documentation accompanied the chilled soil samples submitted to Caliber Analytical Services, LLC (Caliber) of Townson, Maryland for analysis of VOCs, fuel oxygenates, and naphthalene by Environmental Protection Agency (EPA) Method 8260 and TPH-GRO and DRO by EPA Method 8015. Soil samples collected for VOC analysis were retrieved in accordance with EPA Method 5035. Sampling tools were decontaminated between each sample location. The following soil conditions were observed at each sample location and indicate decreasing PID concentrations with depth:

HA-DL-01 – Unit 3 Excavation Area

- Soils encountered were gray micaceous clayey sand from 7.5-feet to 9.5-feet
 - PID 60 ppm at 7.5-feet
 - PID 5 ppm at 8.5-feet
 - PID 1 ppm at 9.0-feet (sample collected from 9.0-feet to 9.5-feet)

HA-DL-02 – Trench Connecting Unit 2 and Unit 3 Excavation Areas

- Soils encountered were gray micaceous clayey sand from 7.5-feet to 9.0-feet
 - PID 70 ppm at 7.5-feet
 - PID 67 ppm at 8.5-feet
 - PID 13 ppm at 9.0-feet

HA-DL-03 – Unit 2 Excavation Area

- Soils encountered were gray micaceous clayey sand from 7.5-feet to 9.5-feet
 - PID 0.8 ppm at 7.5-feet
 - PID 0.7 ppm at 8.5-feet (sample collected from 9.0-feet to 9.5-feet)

HA-DL-04 – Unit 2 Excavation Area

- Soils encountered were gray micaceous clayey sand from 7.5-feet to 9.0-feet
 - PID 6.7 ppm at 7.5-feet
 - PID 0.7 ppm at 8.5-feet

HA-DL-05 – Unit 3 Excavation Area

- Soils encountered were gray micaceous clayey sand from 7.0-feet to 9.0-feet
 - PID 74 ppm at 7.0-feet
 - PID 56 ppm at 7.5-feet
 - PID 6 ppm at 8.5-feet (sample collected from 8.5-feet to 9.0-feet)

As shown on **Table 1**, analytical results of the above soil samples reported concentrations of contaminants of concern below MDE NRCS. As discussed in the August 25, 2021 ROO, a sample location in the Unit 3 excavation area could not be sampled due to water infiltration in the sample area causing soils to collapse into the borehole. PID readings at this sample location (now referred to as “HA-DL-X”) exhibited PID readings of 200 ppm at 7.5-feet and 64 ppm at 8.5-feet. This sample location was replaced by HA-DL-05 located approximately 12-feet northwest along the drain/purge line. Laboratory analytical reports are included as **Attachment 2**.

September 29, 2021
Colonial Pipeline Company – Bel Air Station
Subsurface Investigation Amendment – Drain/Purge Line Sampling

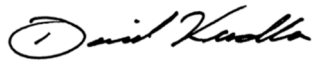
Conclusions

Results of the August 2021 drain/purge line soil samples confirm attainment of MDE NRCS for vertical delineation in the Unit 2 and Unit 3 excavations. Additionally, the August 2021 drain/purge line samples also vertically delineate “PX-LOOP” samples collected during the loop recoat in September 2018 that exceeded MDE NRCS at that time. These soil results along with the soil of samples collected from 14.5-foot and 15.0-foot in October 2020 during the installation of recovery wells RW-7 through RW-9 confirm vertical soil delineation at the HA-3 Area, Unit 3 Release, and downgradient of the Unit 3 release covering the entire combined source Area.

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

Attachments

cc: S. Carpenter – Colonial Pipeline Company
R. Shenk – Colonial Pipeline Company

September 29, 2021
Colonial Pipeline Company – Bel Air Station
Subsurface Investigation Amendment – Drain/Purge Line Sampling

FIGURE 1

2024 - USER: KUDLA - ATTACHED XREFS - ATTACHED IMAGES
 DRAWING NAME: \\p101-12-projects\Colonial Pipeline\Bel Air Station & Spring\Figures\CADD\299980_DRANLINE_POST-EX-2021.09.dwg --- PLOT DATE: September 29, 2021 - 3:42PM --- LAYOUT: SITE MAP 2020
 Version: 2017/02/1

HA-DL-04 8/25/2021	8.5 - 9.0 mg/kg
MTBE	ND
Benzene	ND
Toluene	0.008
Ethylbenzene	ND
Xylenes (total)	ND
1,3,5-Trimethylbenzene	ND
1,2,4-Trimethylbenzene	ND
Naphthalene	ND
TPH-DRO	ND
TPH-GRO	ND

HA-DL-05 8/25/2021	8.5 - 9.0 mg/kg
MTBE	ND
Benzene	0.21
Toluene	0.063
Ethylbenzene	0.17
Xylenes (total)	0.392
1,3,5-Trimethylbenzene	0.017
1,2,4-Trimethylbenzene	0.058
Naphthalene	0.067
TPH-DRO	ND
TPH-GRO	1.8

HA-DL-03 8/25/2021	9.0 - 9.5 mg/kg
MTBE	ND
Benzene	ND
Toluene	ND
Ethylbenzene	ND
Xylenes (total)	ND
1,3,5-Trimethylbenzene	ND
1,2,4-Trimethylbenzene	ND
Naphthalene	ND
TPH-DRO	13
TPH-GRO	ND

HA-DL-02 8/25/2021	8.5 - 9.0 mg/kg
MTBE	ND
Benzene	ND
Toluene	ND
Ethylbenzene	ND
Xylenes (total)	ND
1,3,5-Trimethylbenzene	ND
1,2,4-Trimethylbenzene	ND
Naphthalene	ND
TPH-DRO	ND
TPH-GRO	2.6

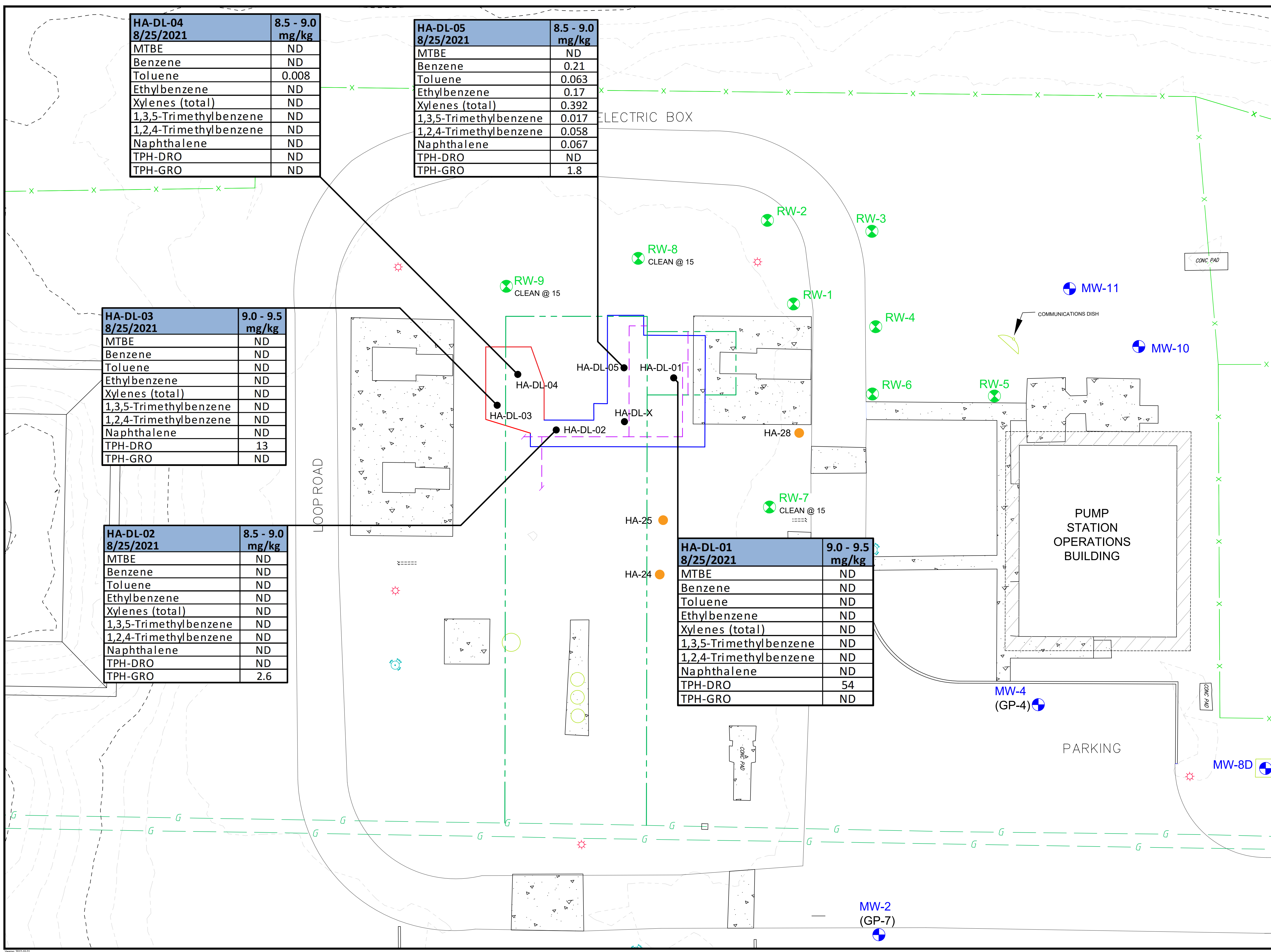
HA-DL-01 8/25/2021	9.0 - 9.5 mg/kg
MTBE	ND
Benzene	ND
Toluene	ND
Ethylbenzene	ND
Xylenes (total)	ND
1,3,5-Trimethylbenzene	ND
1,2,4-Trimethylbenzene	ND
Naphthalene	ND
TPH-DRO	54
TPH-GRO	ND

LEGEND

- MW-5 MONITORING WELL
- RW-2 RECOVERY WELL
- HA-DL-02 DRAIN/PURGE LINE SOIL SAMPLE LOCATION
- HA-28 UNIT 3 RESPONSE HAND AUGER LOCATION
- ⊙ LIGHT POST
- ⊕ HYDRANT
- x — FENCE
- - - - OVERHEAD ELECTRIC LINE
- - - - UNDERGROUND GAS LINE
- - - - APPROXIMATE 6-INCH DRAIN LINE LOCATION
- - - - APPROXIMATE PUMPING LOOP LOCATION
- ▭ APPROXIMATE UNIT 2 EXCAVATION EXTENTS
- ▭ APPROXIMATE UNIT 3 EXCAVATION EXTENTS

- NOTES:**
- VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
 - ALL SOIL ANALYTICAL RESULTS REPORTED IN MG/KG
 - ND: CONCENTRATION NOT DETECTED ABOVE LLQ
 - LLQ: LOWEST LEVEL OF QUANTITATION

Parameter	MD NRCS
MTBE	210
Benzene	5.1
Toluene	4,700
Ethylbenzene	25
Xylenes (total)	250
1,3,5-Trimethylbenzene	150
1,2,4-Trimethylbenzene	180
Naphthalene	17
TPH-DRO	620
TPH-GRO	620



PROJECT: COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE: DRAIN/PURGE LINE SOIL SAMPLE LOCATIONS AUGUST 2021	
DRAWN BY: D.KUDLA	PROJ. NO.: 299980.0000.0000
CHECKED BY: D.KUDLA	FIGURE 1
APPROVED BY: D.CARLSON	
DATE: OCTOBER 2021	

1801 Market Street
 Suite 1380
 Philadelphia, PA 19103
 Phone: 215.563.2122

FILE NO.: 299980_QMR.DWG

September 29, 2021
Colonial Pipeline Company – Bel Air Station
Subsurface Investigation Amendment – Drain/Purge Line Sampling

TABLE 1

TABLE 1

Summary of Post-Excavation Soil Analytical Results - Drain Line
Colonial Pipeline Company - Bel Air Pump Station

			Sample No.: HA-DL-01		Sample No.: HA-DL-02		Sample No.: HA-DL-03		Sample No.: HA-DL-04		Sample No.: HA-DL-05	
			9.0 - 9.5		8.5 - 9.0		9.0 - 9.5		8.5 - 9.0		8.5 - 9.0	
			8/25/2021		8/25/2021		8/25/2021		8/25/2021		8/25/2021	
			21082506-01		21082506-02		21082506-03		21082506-04		21082506-05	
			Caliber		Caliber		Caliber		Caliber		Caliber	
Parameter (mg/kg)	CAS No.	MD NRCS	Result	LLQ	Result	LLQ	Result	LLQ	Result	LLQ	Result	LLQ
Dichlorodifluoromethane	75-71-8	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Chloromethane	74-87-3	46	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Vinyl Chloride	75-01-4	1.7	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Bromomethane	74-83-9	3.0	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Chloroethane	75-00-3	5,700	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Trichlorofluoromethane	75-69-4	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1-Dichloroethene	75-35-4	100	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1,2-Trichlorotrifluoroethane	76-13-1	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Acetone	67-64-1	67,000	ND	0.075	ND	0.076	ND	0.059	ND	0.067	ND	0.075
Carbon Disulfide	75-15-0	350	ND	0.015	ND	0.015	ND	0.012	ND	0.014	ND	0.015
Methyl Acetate	79-20-9	--	ND	0.037	ND	0.038	ND	0.030	ND	0.033	ND	0.038
Methylene chloride	75-09-2	320	ND	0.037	ND	0.038	ND	0.030	ND	0.033	ND	0.038
trans-1,2-Dichloroethene	156-60-5	2,300	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Methyl Tert Butyl Ether (MTBE)	1634-04-4	210	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1-Dichloroethane	75-34-3	16	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
cis-1,2-Dichloroethene	156-59-2	230	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
2-Butanone (MEK)	78-93-3	19,000	ND	0.075	ND	0.076	ND	0.059	ND	0.067	ND	0.075
Chloroform	67-66-3	1.4	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1,1-Trichloroethane	71-55-6	3,600	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Cyclohexane	110-82-7	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Carbon tetrachloride	56-23-5	2.9	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Benzene	71-43-2	5.1	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.21	0.008
1,2-Dichloroethane	107-06-2	2	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Trichloroethene	79-01-6	1.9	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Methylcyclohexane	108-87-2	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.01	0.008
1,2-Dichloropropane	78-87-5	6.6	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Bromodichloromethane	75-27-4	1.3	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
cis-1,3-Dichloropropene	10061-01-5	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
4-methyl-2-pentanone (MIBK)	108-10-1	14,000	ND	0.015	ND	0.015	ND	0.012	ND	0.014	ND	0.015
Toluene	108-88-3	4,700	ND	0.007	ND	0.008	ND	0.006	0.008	0.007	0.063	0.008
trans-1,3-Dichloropropene	10061-02-6	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1,2-Trichloroethane	79-00-5	0.63	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Tetrachloroethene	127-18-4	39	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
2-Hexanone (MBK)	591-78-6	--	ND	0.015	ND	0.015	ND	0.012	ND	0.014	ND	0.015
Dibromochloromethane	124-48-1	39	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,2-Dibromoethane (EDB)	106-93-4	0.16	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Chlorobenzene	108-90-7	130	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Ethylbenzene	100-41-4	25	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.17	0.008
m,p-Xylene	179601-23-1	--	ND	0.015	ND	0.015	ND	0.012	ND	0.014	0.37	0.015
o-Xylene	95-47-6	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.022	0.008
Xylenes (total)	1330-20-7	250	ND	0.022	ND	0.023	ND	0.018	ND	0.021	0.392	0.023
Styrene	100-42-5	3,500	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Bromoform	75-25-2	86	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Isopropylbenzene	98-82-8	990	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,1,2,2-Tetrachloroethane	79-34-5	2.7	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,3,5-Trimethylbenzene	108-67-8	150	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.017	0.008
1,3-Dichlorobenzene	541-73-1	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,2,4-Trimethylbenzene	95-63-6	180	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.058	0.008
1,4-Dichlorobenzene	106-46-7	11	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,2-Dichlorobenzene	95-50-1	930	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,2-Dibromo-3-chloropropane	96-12-8	0.064	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
1,2,4-Trichlorobenzene	120-82-1	26	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Naphthalene	91-20-3	17	ND	0.015	ND	0.015	ND	0.012	ND	0.014	0.067	0.015
tert-Butyl Ethyl Ether (ETBE)	637-92-3	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
tert-Butyl Alcohol (TBA)	75-65-0	--	ND	0.037	ND	0.038	ND	0.030	ND	0.033	ND	0.038
Diisopropyl Ether (DIPE)	108-20-3	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	0.15	0.008
tert-Amyl Methyl Ether (TAME)	994-05-8	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
tert-Amyl Alcohol (TAA)	75-85-4	--	ND	0.037	ND	0.038	ND	0.030	ND	0.033	0.34	0.038
tert-Amyl Ethyl Ether (TAEE)	919-94-8	--	ND	0.007	ND	0.008	ND	0.006	ND	0.007	ND	0.008
Parameter (mg/kg)	CAS No.	MD NRCS	Result	LLQ	Result	LLQ	Result	LLQ	Result	LLQ	Result	LLQ
Diesel Range Organics (DRO)	68476-30-2	620	54	28	ND	28	13	13	ND	23	ND	29
Gasoline Range Organics (GRO)	8006-61-9	620	ND	0.28	2.6	0.33	ND	0.23	ND	0.26	1.8	1.4

Values are reported in milligrams per kilogram (mg/kg)
NRCS = MDE Non-Residential Clean-up Standard
LLQ = Lowest Level of Quantitation
ND = Not Detected above LLQ

September 29, 2021
Colonial Pipeline Company – Bel Air Station
Subsurface Investigation Amendment – Drain/Purge Line Sampling

ATTACHMENT 1

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard, Suite 620 • Baltimore Maryland 21230-1719

(410) 537-3442 • 1-800-633-6101 • <http://www.mde.maryland.gov>

LAND AND MATERIALS ADMINISTRATION

OIL CONTROL PROGRAM

Report of Observations

Type of Inspection/Observations: Drain Loop Soil Sampling	Date: August 25, 2021
Site/Facility Name: Colonial Pipeline – Bel Air Pumping Station	Facility ID #: N/A
Address: 2942 Charles Street	Case #: 18-0459HA/ 21-0104HA
City / County: Fallston / Harford	Permit #:

Remarks:

This writer arrived on site and met with representatives of Colonial Pipeline and their environmental consultant (TRC). The 21-0104HA case was opened at this site following a secondary release from the drain line, in the vicinity of the initial release (case # 18-0459HA). The drain line was repaired upon discovery of the release in Sept. 2020 and initial remediation was performed. Colonial Pipeline made the decision to replace the entire drain line. Work began the week of August 9, 2021. On this date, TRC is collecting delineation and post-excavation soil samples while the excavation is open for the ongoing drain replacement project.

MDE understands that additional soils were excavated in order to access and replace the drain line. On this date, TRC is collecting post-excavation soil samples in areas where soils have been removed. Additionally, TRC's goal is to gain vertical delineation of petroleum impacted soils in the release area. At each sample point, soils were field screened with a photo-ionization detector (PID) between approximately 7 and 9 feet below ground surface (bgs). The maximum PID reading was 200 units, however that was in an area that was too wet and there was not enough soil recovery to collect a sample. Otherwise, the maximum PID reading was 87 units. Generally, PID readings decreased with depth. A total of 5 soil samples were collected throughout the open trenched area using a hand auger: two from the Unit 2 excavation, two from the Unit 3 excavation, and one from along the trench connecting the two excavations. The soil samples were collected at interval depths ranging from approximately 8.5 feet to 9.5 feet bgs.

Interim remediation vacuum events occur bi-weekly at this site. Colonial Pipeline's project management requested that vac truck events cease until they could complete the drain line replacement, due to the amount of equipment and activity in the area. The most recent vac truck event was performed August 9, 2021, and they are expected to resume next week (either Monday August 30, 2021 or Thursday September 2, 2021). This date is subject to change based on the project completion date and approval from project management.

On site, petroleum impacted soils are either placed in a lined roll-off dumpster, or staged on plastic and covered with plastic. The excavation is being actively dewatered by a network of pumps while work is ongoing. There are 5 frac tanks on site which are utilized in this process.

No photographs were taken while on site at the request of Colonial Pipeline personnel.

Continued on page 2.

**MDE/LMA/OCP
Report of Observation**

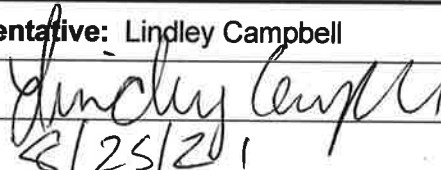
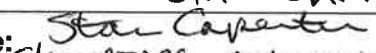
Requirements to be performed based on the above observations:

- 1) Analyze all soil samples collected for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and for total petroleum hydrocarbons – diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015.
- 2) Notify Lindley Campbell via email (lindley.campbell1@maryland.gov) when the vacuum events have resumed.
- 3) Within 45 days, by no later than October 4, 2021, submit a *Report* to MDE summarizing the work performed during this mobilization. At a minimum, this *Report* must include detailed data summary tables and scaled site maps showing sampling locations, sampling procedures, analytical laboratory results and chain of custody, conclusions and recommendations, soil and liquid disposal totals, and all soil and liquid disposal receipts that have not yet been received by MDE in previous reports.

NOTES

- Report the following conditions to the Department immediately, but not later than 2 hours after the detection, at **410-537-3442** during normal business hours, or to the Emergency Response Division hotline at **1-866-633-4686**:
 - An oil spill or discharge
 - If a storage system fails a test for tightness,
 - A storage system is determined to be leaking,
 - 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.

DUPLICATE

MDE Representative: Lindley Campbell	Person Interviewed: STAN CARPENTER
Signature: 	Signature:  SIGNATURE ACKNOWLEDGES RECEIPT
Date: 8/25/21	Date: 8/25/21
MDE Representative:	Person Interviewed:
Signature:	Signature:
Date:	Date:

September 29, 2021
Colonial Pipeline Company – Bel Air Station
Subsurface Investigation Amendment – Drain/Purge Line Sampling

ATTACHMENT 2



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 10:55
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-01	Matrix:	Soil	Lab ID:	21082506-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25540
Percent Solids	69	%		SM2540G	08/30/21	08/31/21 11:26	DBS
Target Compound List - VOLATILES							Batch: 25537
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Acetone	ND	ug/kg	75	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Carbon disulfide	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Methyl acetate	ND	ug/kg	37	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Methylene chloride	ND	ug/kg	37	EPA 8260B	08/27/21	08/30/21 15:06	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
2-Butanone (MEK)	ND	ug/kg	75	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Benzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Toluene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
2-Hexanone (MBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
m&p-Xylene	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:06	GFH
o-Xylene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 10:55
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-01	Matrix:	Soil	Lab ID:	21082506-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							Batch: 25537
Styrene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,3,5-Trimethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2,4-Trimethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Naphthalene	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
tert-Butanol (TBA)	ND	ug/kg	37	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	37	EPA 8260B	08/27/21	08/30/21 15:06	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 15:06	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							Batch: 25545
Diesel Range Organics	54	mg/kg	28	EPA 8015C	08/30/21	08/31/21 13:44	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							Batch: 25533
Gasoline Range Organics	ND	mg/kg	0.28	EPA 8015C	08/26/21	08/26/21 14:24	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 12:25
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-02	Matrix:	Soil	Lab ID:	21082506-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25540
Percent Solids	70	%		SM2540G	08/30/21	08/31/21 11:26	DBS
Target Compound List - VOLATILES							Batch: 25537
Dichlorodifluoromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Chloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Vinyl chloride	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Bromomethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Chloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Trichlorofluoromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Acetone	ND	ug/kg	76	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Carbon disulfide	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Methyl acetate	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Methylene chloride	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 15:43	GFH
trans-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1-Dichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
cis-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
2-Butanone (MEK)	ND	ug/kg	76	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Chloroform	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1,1-Trichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Cyclohexane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Carbon tetrachloride	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Benzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Trichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Methylcyclohexane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2-Dichloropropane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Bromodichloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
cis-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Toluene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
trans-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1,2-Trichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Tetrachloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
2-Hexanone (MBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Dibromochloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Chlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Ethylbenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
m&p-Xylene	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:43	GFH
o-Xylene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 12:25
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-02	Matrix:	Soil	Lab ID:	21082506-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							Batch: 25537
Styrene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Bromoform	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Isopropylbenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,3,5-Trimethylbenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,3-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2,4-Trimethylbenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,4-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Naphthalene	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
tert-Butanol (TBA)	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 15:43	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 15:43	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							Batch: 25545
Diesel Range Organics	ND	mg/kg	28	EPA 8015C	08/30/21	08/31/21 14:27	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							Batch: 25533
Gasoline Range Organics	2.6	mg/kg	0.33	EPA 8015C	08/26/21	08/26/21 14:53	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 12:58
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-03	Matrix:	Soil	Lab ID:	21082506-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25540
Percent Solids	79	%		SM2540G	08/30/21	08/31/21 11:26	DBS
Target Compound List - VOLATILES							Batch: 25537
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Acetone	ND	ug/kg	59	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	08/27/21	08/30/21 16:19	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
2-Butanone (MEK)	ND	ug/kg	59	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Benzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Toluene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	08/27/21	08/30/21 16:19	GFH
o-Xylene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 12:58
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-03	Matrix:	Soil	Lab ID:	21082506-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							Batch: 25537
Styrene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,3,5-Trimethylbenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2,4-Trimethylbenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	08/27/21	08/30/21 16:19	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	6	EPA 8260B	08/27/21	08/30/21 16:19	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							Batch: 25545
Diesel Range Organics	13	mg/kg	13	EPA 8015C	08/30/21	08/31/21 14:27	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							Batch: 25533
Gasoline Range Organics	ND	mg/kg	0.23	EPA 8015C	08/26/21	08/26/21 15:27	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 13:24
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-04	Matrix:	Soil	Lab ID:	21082506-04			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								Batch: 25540
Percent Solids	73	%		SM2540G	08/30/21	08/31/21 11:26	DBS	
Target Compound List - VOLATILES								Batch: 25537
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Chloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Vinyl chloride	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Bromomethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Chloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Acetone	ND	ug/kg	67	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Carbon disulfide	ND	ug/kg	14	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Methyl acetate	ND	ug/kg	33	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Methylene chloride	ND	ug/kg	33	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
2-Butanone (MEK)	ND	ug/kg	67	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Chloroform	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Cyclohexane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Benzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,2-Dichloroethane (EDC)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Trichloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Toluene	8	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
1,2-Dibromoethane (EDB)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Chlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
Ethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
m&p-Xylene	ND	ug/kg	14	EPA 8260B	08/27/21	08/30/21 16:56	GFH	
o-Xylene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH	



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 13:24
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-04	Matrix:	Soil	Lab ID:	21082506-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							Batch: 25537
Styrene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,3,5-Trimethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,2,4-Trimethylbenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Naphthalene	ND	ug/kg	14	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
tert-Butanol (TBA)	ND	ug/kg	33	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	33	EPA 8260B	08/27/21	08/30/21 16:56	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	7	EPA 8260B	08/27/21	08/30/21 16:56	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							Batch: 25545
Diesel Range Organics	ND	mg/kg	23	EPA 8015C	08/30/21	08/31/21 15:54	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							Batch: 25533
Gasoline Range Organics	ND	mg/kg	0.26	EPA 8015C	08/26/21	08/26/21 15:59	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 14:15
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-05	Matrix:	Soil	Lab ID:	21082506-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25540
Percent Solids	69	%		SM2540G	08/30/21	08/31/21 11:27	DBS
Target Compound List - VOLATILES							Batch: 25537
Dichlorodifluoromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Chloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Vinyl chloride	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Bromomethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Chloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Trichlorofluoromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Acetone	ND	ug/kg	75	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Carbon disulfide	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Methyl acetate	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Methylene chloride	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 17:32	GFH
trans-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1-Dichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
cis-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
2-Butanone (MEK)	ND	ug/kg	75	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Chloroform	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1,1-Trichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Cyclohexane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Carbon tetrachloride	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Benzene	210	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Trichloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Methylcyclohexane	10	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2-Dichloropropane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Bromodichloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
cis-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Toluene	63	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
trans-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1,2-Trichloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Tetrachloroethene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
2-Hexanone (MBK)	ND	ug/kg	15	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Dibromochloromethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Chlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Ethylbenzene	170	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
m&p-Xylene	370	ug/kg	15	EPA 8260B	08/27/21	08/30/21 17:32	GFH
o-Xylene	22	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 08/25/21 14:15
Date Received: 08/25/21 15:23
Date Issued: 09/01/21

Project: Bel Air Station
Site Location: Fallston, MD

SDG Number: 21082506

Field Sample ID:	HA-DL-05	Matrix:	Soil	Lab ID:	21082506-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							Batch: 25537
Styrene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Bromoform	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Isopropylbenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,3,5-Trimethylbenzene	17	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,3-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2,4-Trimethylbenzene	58	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,4-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Naphthalene	67	ug/kg	15	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
tert-Butanol (TBA)	ND	ug/kg	38	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Diisopropyl ether (DIPE)	150	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
tert-Amyl alcohol (TAA)	340	ug/kg	38	EPA 8260B	08/27/21	08/30/21 17:32	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	8	EPA 8260B	08/27/21	08/30/21 17:32	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							Batch: 25545
Diesel Range Organics	ND	mg/kg	29	EPA 8015C	08/30/21	08/31/21 15:54	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							Batch: 25533
Gasoline Range Organics	1.8	mg/kg	1.4	EPA 8015C	08/26/21	08/26/21 16:28	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Results reported on a dry weight basis.

Approved by:

QC Chemist

Chain of Custody Record

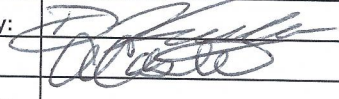
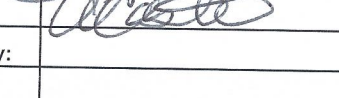
Customer:	Colonial
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air
Project Location:	
Project Number:	

SDG Number:	21082506
Sampled by:	DJK
PO Number:	

Page __ of __

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Analysis Requested												No. of Encores (EPA 5035)	Sampling Remarks/Comments	
						Preservative:														Date/Time:
						Field	Lab													
	HA-DL-01	8/25/21	1055	3	S	X	X	X												
	HA-DL-02	8/25/21	1225	3	S	X	X	X												
	HA-DL-03	8/25/21	1258	3	S	X	X	X												
	HA-DL-04	8/25/21	1324	3	S	X	X	X												
	HA-DL-05	8/25/21	1415	3	S	X	X	X												

Relinquished by:		Date/Time:	8/25/21 11523	Deliverables:	Receipt Temp (°C):	Turnaround Time:
Received by:		Date/Time:	8/25/21 1523	I II III CLP EDD	On Ice N/A Same Day	STD Next Day 2-Day Other 3-Day
Relinquished by:		Date/Time:	/	Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:	/	Sample Cooler		
Relinquished by:		Date/Time:	/	Delivered by client		
Received by:		Date/Time:	/	CAS Courier		

* DW = Drinking Water | GW = Groundwater | SW = Surface Water | W = Water | WW = Wastewater | S = Soil | SED = Sediment | SL = Sludge | O = Oil / Fuel



CALIBER ANALYTICAL SERVICES

VOLATILES

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25537

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
HA-DL-01 / 21082506-01	8/30/2021 3:06:00 PM	98	112	103
HA-DL-02 / 21082506-02	8/30/2021 3:43:00 PM	99	113	101
HA-DL-03 / 21082506-03	8/30/2021 4:19:00 PM	100	114	104
HA-DL-04 / 21082506-04	8/30/2021 4:56:00 PM	99	115	104
HA-DL-05 / 21082506-05	8/30/2021 5:32:00 PM	99	116	103
	Upper Limit	120	120	120
	Lower Limit	85	85	85

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 25537
 MATRIX: SOIL INSTRUMENT: VOC1
 SAMPLE ID: LCS
 DATE ANALYZED: 8/30/2021 12:39:00 PM
 LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	24.6	98	62 - 140
BENZENE	25	NA	22.4	90	69 - 127
CARBON TETRACHLORIDE	25	NA	21.9	88	72 - 126
CHLOROBENZENE	25	NA	22.3	89	73 - 108
CHLOROFORM	25	NA	21.5	86	65 - 135
M&P-XYLENE	50	NA	47.6	95	67 - 121
METHYL T-BUTYL ETHER (MTBE)	25	NA	22.7	91	77 - 139
TETRACHLOROETHENE	25	NA	24.2	97	70 - 114
TOLUENE	25	NA	23.1	92	68 - 127
TRICHLOROETHENE	25	NA	22.7	91	68 - 117
VINYL CHLORIDE	25	NA	25.7	103	72 - 134

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(\text{Spike Conc.} - \text{Sample Conc.})}{\text{Spike Added}} \right] * 100$

$$\text{Relative Percent Difference (RPD)} = \left| \frac{(\text{Spike Dup Conc.} - \text{Spike Conc.})}{\left(\frac{(\text{Spike Dup Conc.} + \text{Spike Conc.})}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25537
Batch Date: 8/27/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Chloromethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Bromomethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Chloroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Acetone	ND	ug/kg	EPA 8260B	50.0	08/30/21 13:15
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	08/30/21 13:15
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	08/30/21 13:15
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	08/30/21 13:15
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	08/30/21 13:15
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Benzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2-Dichloroethane (EDC)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	08/30/21 13:15
TOLUENE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	08/30/21 13:15
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2-Dibromoethane (EDB)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25537
Batch Date: 8/27/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	08/30/21 13:15
o-Xylene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Styrene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Bromoform	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,3,5-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2,4-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
Naphthalene	ND	ug/kg	EPA 8260B	10.0	08/30/21 13:15
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	08/30/21 13:15
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	08/30/21 13:15
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	08/30/21 13:15

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

GRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25533

Sample ID	Date/Time Analyzed	TFT
HA-DL-01 / 21082506-01	8/26/2021 2:24:00 PM	90
HA-DL-02 / 21082506-02	8/26/2021 2:53:00 PM	94
HA-DL-03 / 21082506-03	8/26/2021 3:27:00 PM	81
HA-DL-04 / 21082506-04	8/26/2021 3:59:00 PM	97
HA-DL-05 / 21082506-05	8/26/2021 4:28:00 PM	83

Upper Limit	125
Lower Limit	50

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25533
MATRIX: SOIL INSTRUMENT: VOC-PID/FID
SAMPLE ID: LCS
DATE ANALYZED: 8/26/2021 1:27:00 PM
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	5034.9	92	75 - 125

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(\text{Spike Conc.} - \text{Sample Conc.})}{\text{Spike Added}} \right] * 100$

$$\text{Relative Percent Difference (RPD)} = \left| \frac{(\text{Spike Dup Conc.} - \text{Spike Conc.})}{\left(\frac{(\text{Spike Dup Conc.} + \text{Spike Conc.})}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: GRO
Matrix: Soil

Batch ID: 25533
Batch Date: 8/26/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	08/26/21 13:56

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

DRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25545

Sample ID	Date/Time Analyzed	o-Terphenyl
HA-DL-01 / 21082506-01	8/31/2021 1:44:00 PM	91
HA-DL-02 / 21082506-02	8/31/2021 2:27:00 PM	90
HA-DL-03 / 21082506-03	8/31/2021 2:27:00 PM	89
HA-DL-04 / 21082506-04	8/31/2021 3:54:00 PM	93
HA-DL-05 / 21082506-05	8/31/2021 3:54:00 PM	75
	Upper Limit	126
	Lower Limit	46

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25545
 MATRIX: SOIL INSTRUMENT: DRO1
 SAMPLE ID: LCS
 DATE ANALYZED: 8/31/2021 12:17:00 PM
 LAB FILE IDs: 04.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPIKE CONC (mg/L)	SPIKE REC (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	504.9	99	60 - 120

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(Spike\ Conc. - Sample\ Conc.)}{Spike\ Added} \right] * 100$

$$Relative\ Percent\ Difference\ (RPD) = \left| \frac{(Spike\ Dup\ Conc. - Spike\ Conc.)}{\left(\frac{(Spike\ Dup\ Conc. + Spike\ Conc.)}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: DRO
Matrix: Soil

Batch ID: 25545
Batch Date: 8/30/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	08/31/21 12:17

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.