

10. Conclusions

This section presents a summary and conclusions for onsite areas and the offsite trail. Additionally, it describes the public involvement activities and next steps for PADEP's concurrence.

Onsite Areas: The Site has undergone environmental assessment activities since 2021, when the ASTs and associated piping were removed. Based on the results of previous AST closure soil sampling and subsequent delineation soil sampling for Act 2, concentrations of benzene, naphthalene, bis(2-chloroethyl)ether, biphenyl, lead, total chromium, and hexavalent chromium are greater than their respective PADEP Non-Residential Soil MSCs. Soil exceedances have been delineated onsite and soils containing COCs will be moved to a contained area during redevelopment activities. It is proposed that SSS will be used for these COCs, with pathway elimination consisting of an EC and engineering controls installed during redevelopment of the Site.

Groundwater sampling has identified benzene, naphthalene, filtered lead, filtered total chromium, and filtered hexavalent chromium at concentrations greater than the PADEP Non-Residential Used Aquifer Groundwater MSCs; these COCs will meet SSS. The concentrations of VOCs and lead have remained stable or have shown a decreasing trend throughout the quarterly monitoring program, and the detected concentrations in groundwater in the downgradient wells are less than their respective groundwater MSCs. The concentrations of all other COCs are less than the PADEP Non-Residential Used Aquifer Groundwater MSCs. Based on the sampling results over eight consecutive quarters, attainment in groundwater is demonstrated, except for the total and hexavalent chromium, which are still being sampled for in accordance with PADEP communications (Appendix A). Site-related COCs are not expected to travel beyond the Site boundary or adjacent railroad at concentrations greater than their respective MSCs. Analytical results from surface water samples collected in the Schuylkill River confirm that COCs are not impacting surface water. It is proposed that SSS will be used for benzene, naphthalene, lead, and total and hexavalent chromium, with pathway elimination consisting of an EC. PADEP communications resulting from ecological screening confirm no open exposure pathways to ecological receptors.

Soil gas was evaluated through the comparison of soil, groundwater, and soil gas sampling results to the PADEP Non-Residential SHS VI SVs. In addition, soil gas sampling results were evaluated relative to 1/10th the VI SVs for benzene and naphthalene because the SSS will be used to address these organic COCs. The evaluation identified benzene in sample SG-5 and non-detected MDLs at concentrations greater than the applicable VI SVs in SG-5, SG-6, and SG-7. As part of the warehouse construction during Site redevelopment, a passive SSDS will be installed as a proactive vapor intrusion mitigation measure to address concentrations greater than VI SVs beneath the building.

Bartram's Garden Mile Trail: Detections of hexavalent chromium are present in exceedance of the relevant Soil MSCs, Non-residential MSCs onsite and Residential MSCs along Bartram's Garden Mile Trail. Alliance remediated areas of Bartram's Garden Mile Trail receiving runoff from the Site drainage swale after discussion with PADEP, and post-remediation soil sampling results were primarily below the standards. Following the removal activities, the detections along the trail are not believed to be associated with historical Site operations, but rather with historical filling activities, the deposition of Schuylkill River sediments, as well as tidal influences from the river. Additional risk evaluations will be conducted, as agreed upon with PADEP, to evaluate hexavalent chromium at the specified locations along Bartram's Garden Mile Trail. The risk assessment will be submitted to PADEP under separate cover.

Public Involvement: The City of Philadelphia comments on the PIP were addressed, as practicable, in the February 2025 update to the PIP (Appendix B). A public meeting will be held following submittal of this RIR/Cleanup Plan. Other details of the PIP are presented in Section 1.2.

Table 1
Tank Containment Area 1 - Summary of Soil Sampling Results for AST Closure
Alliance 51st Street LLC
1630-1646 South 51st Street
Philadelphia, Pennsylvania



	Representative Pennsylvania Soil MSC (lower of Soil to GW and Direct Contact Screening Values)	Pennsylvania Non-Residential Soil Statewide Health Standard Vapor Intrusion Screening Values	Sample ID: Area: Laboratory ID: Collection Date: Sample Depth:	410-57140-5 9/23/2021 5.0				7551-South 1 410-57140-7 9/23/2021 5.0				DUP-9 1 410-56522-16 9/23/2021				UNK-ST-S 1 410-50503-6 8/6/2021 3.0				UNK-ST-N 1 410-50503-7 8/6/2021 3.0			
				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
				Volatile Organic Compounds																			
Ethylbenzene	70	46		0.046	U	0.58	0.046	0.00043	U	0.0054	0.00043	0.00066	U	0.0082	0.00066	0.000851	J	0.0079	0.00063	0.3101	J	0.43	0.034
1,2-Dichloroethane	0.5	3.9		0.07	U	0.58	0.07	0.00065	U	0.0054	0.00065	0.00098	U	0.0082	0.00098	0.00094	U	0.0079	0.00094	0.051	U	0.43	0.051
1,3,5-Trimethylbenzene	93	93		0.0811	J	0.58	0.058	0.00054	U	0.0054	0.00054	0.00082	U	0.0082	0.00082	0.00661	J	0.0079	0.001	1.10		0.43	0.043
Toluene	100	44		0.07	U	0.58	0.07	0.00065	U	0.0054	0.00065	0.00111	J	0.0082	0.00098	0.00281	J	0.0079	0.00094	0.740		0.43	0.05100
Xylenes, total	1,000	990		0.16	U	1.200	0.16	0.0015	U	0.011	0.0015	0.0023	U	0.016	0.0023	0.00721	J	0.016	0.002	2.40		0.860	0.120
Methyl tert-butyl ether	2.0	1.4		0.2401	J	0.58	0.058	0.00054	U	0.0054	0.00054	0.023		0.0082	0.00082	0.00181	J	0.0079	0.00079	0.043	U	0.43	0.043
Benzene	0.5	0.13		0.058	U	0.58	0.058	0.00054	U	0.0054	0.00054	0.00121	J	0.0082	0.00082	0.00181	J	0.0079	0.00079	0.560		0.43	0.043
Naphthalene	25	25		0.23	U	0.58	0.23	0.0022	U	0.0054	0.0022	0.0033	U	0.0082	0.0033	0.00331	J	0.0079	0.00310	3.40		0.43	0.17000
1,2,4-Trimethylbenzene	300	300		0.1701	J	0.58	0.058	0.00054	U	0.0054	0.00054	0.00082	U	0.0082	0.00082	0.012		0.0079	0.00079	2.80		0.43	0.043
Isopropylbenzene	2,500	2,500		0.046	U	0.58	0.046	0.00043	U	0.0054	0.00043	0.00066	U	0.0082	0.00066	0.00063	U	0.0079	0.00063	0.1201	J	0.43	0.034
1,2,-Dibromoethane	0.005	0.0013		0.046	U	0.58	0.046	0.00043	U	0.0054	0.00043	0.00066	U	0.0082	0.00066	0.00063	U	0.0079	0.00063	0.034	U	0.43	0.034
Semivolatile Organic Compounds																							
Anthracene	350	--		0.63		0.019	0.004	0.059		0.022	0.004	0.0221		0.028	0.006	0.0241	J	0.026	0.005	11		0.210	0.042
Benzo(a)anthracene	130	--		0.5		0.019	0.004	0.19		0.022	0.004	0.054		0.028	0.006	0.0251	J	0.026	0.005	8.70		0.210	0.042
Benzo(a)pyrene	46	--		0.27		0.019	0.004	0.16		0.022	0.004	0.058		0.028	0.006	0.0151	J	0.026	0.005	5.30		0.210	0.042
Benzo(b)fluoranthene	76	--		0.43		0.019	0.004	0.19		0.022	0.004	0.069		0.028	0.006	0.0231	J	0.026	0.005	6.80		0.210	0.042
Benzo(g,h,i)perylene	180	--		0.18		0.019	0.004	0.11		0.022	0.004	0.062		0.028	0.006	0.0052	U	0.026	0.005	2.70		0.021	0.004
Chrysene	230	--		0.53		0.019	0.004	0.16		0.022	0.004	0.068		0.028	0.006	0.0221	J	0.026	0.005	8.00		0.210	0.042
Fluorene	3,800	--		0.78		0.019	0.004	0.0171	J	0.022	0.004	0.00911		0.028	0.006	0.0052	U	0.026	0.005	3.80		0.021	0.004
Phenanthrene	10,000	--		4		0.019	0.005	0.19		0.022	0.005	0.091		0.028	0.007	0.200		0.026	0.006	29		0.210	0.051
Pyrene	2,200	--		1.8		0.019	0.004	0.32		0.022	0.004	0.099		0.028	0.006	0.098		0.026	0.005	15		0.210	0.042
Inorganics																							
Lead	450	--		36		1.600	0.660	32		2.000	0.790	42		2.000	0.780	39		2.200	0.870	65		1.600	0.640

Table 12
Summary of Monitoring Well Sampling Results
Alliance 51st Street LLC
1630 - 1646 South 51st Street
Philadelphia, Pennsylvania

Analyte	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs	Sample ID: Laboratory ID: Collection Date: Sample Matrix:	MW-003 L2158499-03 10/25/2021 WATER				MW-004 L2158499-04 10/25/2021 WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL
Benzo(k)fluoranthene	0.55		0.01	U	0.1	0.01	0.01	U	0.1	0.01
Bis(2-chloroethyl)ether	0.76		0.02	U	0.1	0.02	0.02	U	0.1	0.02
Bis(2-ethylhexyl)phthalate	6		0.51	U	1	0.51	0.51	U	1	0.51
Dibenzo(a,h)anthracene	0.6		0.01	U	0.05	0.01	0.01	U	0.05	0.01
Hexachlorobenzene	1		0.01	U	0.02	0.01	0.01	U	0.02	0.01
Hexachloroethane	1		0.06	U	0.2	0.06	0.06	U	0.2	0.06
Indeno(1,2,3-cd)pyrene	2.3		0.01	U	0.1	0.01	0.01	U	0.1	0.01
n-Nitrosodi-n-propylamine	--		0.01	U	0.1	0.01	0.01	U	0.1	0.01
Pentachlorophenol	1		0.01	U	0.1	0.01	0.01	U	0.1	0.01

Notes:

1. Concentrations are reported in micrograms per liter.
2. There were no detected exceedances of the Groundwater MSCs.
3. ***Bold and italicized*** values indicate a non-detected result with the MDL greater than the MSC.

Acronyms and Abbreviations:

- = Data not available.
 -- = No Pennsylvania Department of Environmental Protection criteria established for this parameter.
 Conc = concentration
 GC/MS = gas chromatography/mass spectrometry
 ID = identification
 MDL = method detection limit
 MSC = Medium Specific Concentration
 NDPA/DPA = n-nitrosodipropylamine/diphenylamine
 NS = no Pennsylvania Department of Environmental Protection criteria established for this parameter
 Q = qualifier
 RL = reporting limit
 SIM = selected ion monitoring

Laboratory Qualifiers:

U = the compound was undetected at the listed laboratory method detection limit

Table 15
Summary of 2024 Surface Water Sampling Results
Alliance 51st Street LLC
1630-1646 South 51st Street
Philadelphia, Pennsylvania



Analyte:	Pennsylvania Fish and Aquatic Life Criteria (µg/l)	SW-1 L2423395-01 4/29/2024 Water				DEP51-W1 L2441149-13 7/22/2024 Water				DEP51-W2 L2441149-14 7/22/2024 Water				DEP51-W3 L2441149-15 7/22/2024 Water				DEP51-W4 L2441149-16 7/22/2024 Water				DUP-W (DEP51-W4) L2441149-17 7/22/2024 Water				DEP51-W5-240813 L2445674-12 8/13/2024 Water				DEP51-W6-240813 L2445674-13 8/13/2024 Water			
		Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Volatile Organics by GC/MS																																	
1,2-Dichlorobenzene	160	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	-	-	-	-	-	-	-	-
1,2-Dichloroethane	9.9	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	150	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	-	-	-	-	-	-	-	-
2-Butanone	--	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	-	-	-	-	-	-	-	-
Acetone	3500	8.6		5	1.5	1.8	J	5	1.5	1.7	J	5	1.5	1.5	U	5	1.5	1.6	J	5	1.5	1.7	J	5	1.5	-	-	-	-	-	-	-	-
Benzene	0.58	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	-	-	-	-	-	-	-	-
Cyclohexane	0.0004	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	-	-	-	-	-	-	-	-
Ethylbenzene	68	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	-	-	-	-	-	-	-	-
Isopropylbenzene	--	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	-	-	-	-	-	-	-	-
Methyl Acetate	--	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	-	-	-	-	-	-	-	-
Methyl cyclohexane	--	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	-	-	-	-	-	-	-	-
Methyl tert butyl ether	--	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	-	-	-	-	-	-	-	-
o-Xylene	--	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	-	-	-	-	-	-	-	-
p/m-Xylene	--	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	-	-	-	-	-	-	-	-
Styrene	--	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	-	-	-	-	-	-	-	-
Toluene	57	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	-	-	-	-	-	-	-	-
Xylenes, Total	210	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	-	-	-	-	-	-	-	-
Semivolatile Organics by GC/MS																																	
1,2,4,5-Tetrachlorobenzene	0.03	0.44	U	1.7	0.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2-Methylnaphthalene	--	0.45	U	2	0.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acenaphthene	17	0.53	U	2	0.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Anthracene	300	0.33	U	2	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biphenyl	--	0.46	U	2	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chrysene	0.12	0.34	U	1.4	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibenzofuran	--	0.5	U	2	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fluoranthene	20	0.26	U	2	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fluorene	50	0.41	U	2	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Naphthalene	43	0.46	U	2	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenanthrene	1	0.33	U	2	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pyrene	20	0.28	U	2	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Semivolatile Organics by GC/MS-SIM																																	
Benzo(a)anthracene	0.001	0.02	U	0.05	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(a)pyrene	0.0001	0.02	U	0.1	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(b)fluoranthene	0.001	0.01	J	0.05	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(ghi)perylene	--	0.01	U	0.1	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(k)fluoranthene	0.01	0.01	J	0.1	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bis(2-chloroethyl)ether	0.03	0.02	U	0.1	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Indeno(1,2,3-cd)pyrene	0.001	0.01	U	0.1	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dissolved Metals																																	
Chromium, Dissolved	90.34	-	-	-	-	0.2748	J	1	0.178	0.2298	J	1	0.178	0.2059	J	1	0.178	0.2308	J	1	0.178	0.2487	J	1	0.178	-	-	-	-	-	-	-	-
Lead, Dissolved	3.27	-	-	-	-	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343	-	-	-	-	-	-	-	-
General Chemistry																																	
Chromium, Hexavalent	11	-	-	-	-	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3	19600		500	150	28000		1000	300
Total Metals																																	
Chromium, Total	90.34	21560		500	89	0.3406	J	1	0.178	0.2938	J	1	0.178	0.27	J	1	0.178	0.2745	J	1	0.178	0.2831	J	1	0.178	23850		500	89	33610		500	89
Lead, Total	3.27	-	-	-	-	1.069		1	0.343	0.5946	J	1	0.343	0.615	J	1	0.343	0.7412	J	1	0.343	0.6885	J	1	0.343	1.715	U	5	1.715	1.715	U	5	1.715

Table 16
Summary of Soil Sampling Locations with Exceedances
Alliance 51st Street LLC
1630-1646 South 51st Street
Philadelphia, Pennsylvania



Parameter	Area	Soil Sampling Locations with Exceedances			
		Pennsylvania Non-Residential Direct Contact Surface Soil (0-2') Screening Value	Pennsylvania Non-Residential Direct Contact Subsurface Soil (2-15') Screening Value	Applicable Pennsylvania Non-Residential Soil to Groundwater Screening Value (Higher of Generic and 100 X GW MSC)	Pennsylvania Non-Residential Soil SHS Vapor Intrusion Screening Value
AST Case					
Benzene		280 mg/kg	330 mg/kg	0.5 mg/kg	0.13 mg/kg
	Tank Containment Area 1			7551-P6 (3 ft) [0.72 mg/kg]	7551-P6 (3 ft) [0.72 mg/kg]
	Tank Containment Area 1			UNK-ST-N (3 ft) [0.56 mg/kg]	UNK-ST-N (3 ft) [0.56 mg/kg]
	Tank Containment Area 3			Pipe 29(2 ft) [0.66 mg/kg]	Pipe 29(2 ft) [0.66 mg/kg]
	Tank Containment Area 1			SB-105 (4-4.5 ft) [1.8 mg/kg]	SB-105 (4-4.5 ft) [1.8 mg/kg]
	Tank Containment Area 1			SB-213 (4-4.5 ft) [1.8 mg/kg]	SB-213 (4-4.5 ft) [1.8 mg/kg]
	Tank Containment Area 1				SB-207 (4-4.5 ft) [0.19 mg/kg]
	Tank Containment Area 1				SB-216 (3.5-4 ft) [0.27 mg/kg]
Naphthalene		66 mg/kg	77 mg/kg	25 mg/kg	25 mg/kg
	Tank Containment Area 1		SB-213 (4-4.5 ft) [1,700 mg/kg]	SB-215 (4.5-5 ft) [38 mg/kg]	SB-213 (4-4.5 ft) [1,700 mg/kg]
	Tank Containment Area 1				SB-215 (4.5-5 ft) [38 mg/kg]
Lead, total		1,000 mg/kg	190,000 mg/kg	450 mg/kg	NA
	Tank Containment Area 1			7550-P1 (3 ft) [690 mg/kg]	
	Tank Containment Area 1			Pipe 70 (2 ft) [750 mg/kg]	
	Tank Containment Area 1			Pipe 81 (2 ft) [500 mg/kg]	
	Tank Containment Area 1			Pipe 86 (2 ft) [540 mg/kg]	
	Tank Containment Area 1			Pipe 87 (2 ft) [720 mg/kg]	
Act 2 Case					
Benzene		280 mg/kg	330 mg/kg	0.5 mg/kg	0.13 mg/kg
	Pad West of Tank Containment Area 1			SB-202 (8.5-9) [2.6 mg/kg]	SB-202 (8.5-9) [2.6 mg/kg]
	Pad West of Tank Containment Area 1			SB-204 (8.5-9) [0.59 mg/kg]	SB-204 (8.5-9) [0.59 mg/kg]
	Pad West of Tank Containment Area 1			SB-217 (8.5-9) [1 mg/kg]	SB-217 (8.5-9) [1 mg/kg]
	Pad West of Tank Containment Area 1				SB-203 (8.5-9) [0.4 mg/kg]
Lead, total		1,000 mg/kg	190,000 mg/kg	450 mg/kg	NA
	Tank Containment Area 3			941-P3 (3 ft) [610 mg/kg]	
	Tank Containment Area 3			941-Center (5 ft) [560 mg/kg]	
	Tank Containment Area 2			1043-P2 (3 ft) [490 mg/kg]	
	Tank Containment Area 2			1043-P4 (3 ft) [880 mg/kg]	
	Tank Containment Area 2			1043-P5 (3 ft) [560 mg/kg]	
	Tank Containment Area 2			1044-P3 (3 ft) [810 mg/kg]	
	Tank Containment Area 2			1044-P4 (3 ft) [2,100 mg/kg]	
	Tank Containment Area 2			1044-Center (5 ft) [990 mg/kg]	
	Tank Containment Area 3			2040-P2 (3 ft) [1,200 mg/kg]	
	Tank Containment Area 3			Pipe 33 (2 ft) [920 mg/kg]	
	Tank Containment Area 2			Pipe 46 (2 ft) [600 mg/kg]	
	Tank Containment Area 2			Pipe 51 (2 ft) [460 mg/kg]	
	Tank Containment Area 2			Pipe 55 (2 ft) [750 mg/kg]	

DPK Consulting, LLC
200 Metroplex Drive Suite-285 Edison, New Jersey 08817
Telephone: 732.764.0100 Fax: 732.764.0990 Email: Jheiser@dpkconsulting.net

For: ARCADIS U.S. INC.
Site: 1646 South 51st Street. Philadelphia, Pennsylvania

Date of Survey: April 1, 2022

Project #22-9519

April 4, 2022

Horizontal Datum: PA SOUTH PLANE COORDINATE GRID NAD 83

Vertical Datum: NAVD 88

BENCHMARK: PAPH PHILADELPHIA WDPT CORS ARP ELEV.:199.77

Additional Information:

MONITORING WELLS	ELEVATIONS			COORDINATES			
	GROUND	RIM	PVC	NORTHING	EASTING	LATITUDE (N)	LONGITUDE (W)
MW-1	12.51' DIRT	15.07'	14.19	229614	2681439	39°12'24.78"	66°46'41.29"
MW-2	15.11' DIRT	17.52'	16.44	229692	2681017	39°12'25.90"	66°46'46.52"
MW-3	16.70' DIRT	19.99'	19.33	229431	2680977	39°12'23.38"	66°46'47.31"
MW-4	27.51' GRAVEL	30.44'	28.76	229309	2680696	39°12'22.42"	66°46'50.97"
MW-5	26.70' GRAVEL	29.22'	29.02	229565	2680481	39°12'25.11"	66°46'53.40"
MW-7	16.43' DIRT	19.47'	19.17	229682	2680734	39°12'26.05"	66°46'50.09"
MW-8	23.18' PAVE	23.09'	22.74	229715	2680555	39°12'26.52"	66°46'52.30"
MW-9	29.03' GRAVEL	31.54'	31.36	229269	2680544	39°12'22.16"	66°46'52.93"

NOTE:
MW-2 was damaged and required repair. Alliance's surveyor
resurveyed the RIM elevation at 18.24'

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 77 (2) (Continued)

Lab Sample ID: 410-50281-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	8100		360	36	ug/Kg	50	✱	8260C	Total/NA
Toluene	100	J	360	44	ug/Kg	50	✱	8260C	Total/NA
Xylenes, Total	3500		730	100	ug/Kg	50	✱	8260C	Total/NA
Naphthalene	2000		360	150	ug/Kg	50	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	19000		360	36	ug/Kg	50	✱	8260C	Total/NA
Isopropylbenzene	1800		360	29	ug/Kg	50	✱	8260C	Total/NA
Benzo[a]anthracene	190		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	270		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	200		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	270		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Chrysene	370		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Fluorene	900		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	870		22	5.4	ug/Kg	1	✱	8270D	Total/NA
Pyrene	560		22	4.5	ug/Kg	1	✱	8270D	Total/NA
Lead	210		1.8	0.71	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 76 (2)

Lab Sample ID: 410-50281-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tertiary butyl ether	1.1	J	4.8	0.48	ug/Kg	1	✱	8260C	Total/NA
Anthracene	14	J	18	3.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	83		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	120		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	190		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	150		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Chrysene	140		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Fluorene	5.6	J	18	3.6	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	76		18	4.3	ug/Kg	1	✱	8270D	Total/NA
Pyrene	180		18	3.6	ug/Kg	1	✱	8270D	Total/NA
Lead	270		1.6	0.62	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: 7551-P3 (3)

Lab Sample ID: 410-50281-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	0.71	J	6.3	0.63	ug/Kg	1	✱	8260C	Total/NA
Toluene	0.84	J	6.3	0.75	ug/Kg	1	✱	8260C	Total/NA
Benzene	0.85	J	6.3	0.63	ug/Kg	1	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	0.77	J	6.3	0.63	ug/Kg	1	✱	8260C	Total/NA
Anthracene	65		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	220		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	200		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	230		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	140		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Chrysene	210		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Fluorene	32		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	260		23	5.5	ug/Kg	1	✱	8270D	Total/NA
Pyrene	340		23	4.6	ug/Kg	1	✱	8270D	Total/NA
Lead	44		1.9	0.76	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 410-50281-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 53 (2)

Lab Sample ID: 410-50281-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	170	J	220	45	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	220		220	45	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	230		220	45	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	160	J	220	45	ug/Kg	5	✱	8270D	Total/NA
Chrysene	170	J	220	45	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	56	J	220	54	ug/Kg	5	✱	8270D	Total/NA
Pyrene	220		220	45	ug/Kg	5	✱	8270D	Total/NA
Lead	83		1.4	0.58	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: 1044-P4 (3)

Lab Sample ID: 410-50281-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3	J	6.7	0.67	ug/Kg	1	✱	8260C	Total/NA
Anthracene	64		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	120		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	95		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	120		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	77		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Chrysene	120		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Fluorene	37		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	99		23	5.4	ug/Kg	1	✱	8270D	Total/NA
Pyrene	150		23	4.5	ug/Kg	1	✱	8270D	Total/NA
Lead	2100		1.9	0.78	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 55 (2)

Lab Sample ID: 410-50281-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	110		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	510		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	460		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	580		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	330		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Chrysene	580		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Fluorene	92		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	1100		23	5.6	ug/Kg	1	✱	8270D	Total/NA
Pyrene	930		23	4.7	ug/Kg	1	✱	8270D	Total/NA
Lead	750	F2	1.8	0.73	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 78 (2)

Lab Sample ID: 410-50281-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	140	J	550	44	ug/Kg	50	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	1100		550	55	ug/Kg	50	✱	8260C	Total/NA
Toluene	110	J	550	65	ug/Kg	50	✱	8260C	Total/NA
Xylenes, Total	470	J	1100	150	ug/Kg	50	✱	8260C	Total/NA
Naphthalene	290	J	550	220	ug/Kg	50	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	2200		550	55	ug/Kg	50	✱	8260C	Total/NA
Isopropylbenzene	180	J	550	44	ug/Kg	50	✱	8260C	Total/NA
Anthracene	31		28	5.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	22	J	28	5.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	21	J	28	5.5	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	40		28	5.5	ug/Kg	1	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 78 (2) (Continued)

Lab Sample ID: 410-50281-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	56		28	5.5	ug/Kg	1	✱	8270D	Total/NA
Chrysene	30		28	5.5	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	64		28	6.6	ug/Kg	1	✱	8270D	Total/NA
Pyrene	54		28	5.5	ug/Kg	1	✱	8270D	Total/NA
Lead	94		1.9	0.74	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 79 (2)

Lab Sample ID: 410-50281-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1700		250	20	ug/Kg	50	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	39	J	250	25	ug/Kg	50	✱	8260C	Total/NA
Xylenes, Total	110	J	510	71	ug/Kg	50	✱	8260C	Total/NA
Benzene	26	J	250	25	ug/Kg	50	✱	8260C	Total/NA
Naphthalene	820		250	100	ug/Kg	50	✱	8260C	Total/NA
Isopropylbenzene	1000		250	20	ug/Kg	50	✱	8260C	Total/NA
1,2,4-Trimethylbenzene - DL	27000		2500	250	ug/Kg	500	✱	8260C	Total/NA
Anthracene	35		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	62		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	47		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	44		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	41		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Chrysene	80		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Fluorene	130		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	190		18	4.4	ug/Kg	1	✱	8270D	Total/NA
Pyrene	100		18	3.7	ug/Kg	1	✱	8270D	Total/NA
Lead	14		1.3	0.51	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: 7551-P7 (3)

Lab Sample ID: 410-50281-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	42	J	340	27	ug/Kg	50	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	180	J	340	34	ug/Kg	50	✱	8260C	Total/NA
Toluene	220	J	340	41	ug/Kg	50	✱	8260C	Total/NA
Xylenes, Total	300	J	680	95	ug/Kg	50	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	420		340	34	ug/Kg	50	✱	8260C	Total/NA
Anthracene	18	J	20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	26		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	39		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	48		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	95		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Chrysene	34		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	35		20	4.8	ug/Kg	1	✱	8270D	Total/NA
Pyrene	44		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Lead	18		1.6	0.65	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 82 (2)

Lab Sample ID: 410-50281-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.0	J	7.3	0.58	ug/Kg	1	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	0.73	J	7.3	0.73	ug/Kg	1	✱	8260C	Total/NA
Toluene	6.8	J	7.3	0.87	ug/Kg	1	✱	8260C	Total/NA
Xylenes, Total	5.9	J	15	2.0	ug/Kg	1	✱	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 82 (2) (Continued)

Lab Sample ID: 410-50281-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.2	J	7.3	0.73	ug/Kg	1	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	1.2	J	7.3	0.73	ug/Kg	1	✱	8260C	Total/NA
Anthracene	110		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	360		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	390		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	510		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	390		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Chrysene	390		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Fluorene	32		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	450		24	5.7	ug/Kg	1	✱	8270D	Total/NA
Pyrene	570		24	4.7	ug/Kg	1	✱	8270D	Total/NA
Lead	200		1.9	0.78	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: 7551-P6 (3)

Lab Sample ID: 410-50281-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	4100		460	37	ug/Kg	50	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	15000		460	46	ug/Kg	50	✱	8260C	Total/NA
Toluene	8400		460	55	ug/Kg	50	✱	8260C	Total/NA
Xylenes, Total	31000		920	130	ug/Kg	50	✱	8260C	Total/NA
Benzene	720		460	46	ug/Kg	50	✱	8260C	Total/NA
Naphthalene	1100		460	180	ug/Kg	50	✱	8260C	Total/NA
Isopropylbenzene	2000		460	37	ug/Kg	50	✱	8260C	Total/NA
1,2,4-Trimethylbenzene - DL	51000		4600	460	ug/Kg	500	✱	8260C	Total/NA
Anthracene	21	J	25	5.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	26		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	17	J	25	5.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	29		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	43		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Chrysene	63		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Fluorene	31		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	74		25	6.0	ug/Kg	1	✱	8270D	Total/NA
Pyrene	36		25	5.0	ug/Kg	1	✱	8270D	Total/NA
Lead	21		2.3	0.90	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 81 (2)

Lab Sample ID: 410-50281-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.4	J	5.6	0.44	ug/Kg	1	✱	8260C	Total/NA
1,2-Dichloroethane	1.3	J	5.6	0.67	ug/Kg	1	✱	8260C	Total/NA
Toluene	31		5.6	0.67	ug/Kg	1	✱	8260C	Total/NA
Xylenes, Total	7.3	J	11	1.6	ug/Kg	1	✱	8260C	Total/NA
Benzene	12		5.6	0.56	ug/Kg	1	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	1.1	J	5.6	0.56	ug/Kg	1	✱	8260C	Total/NA
Anthracene	48		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	120		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	330		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	370		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	430		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Chrysene	130		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Fluorene	12	J	20	4.1	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	97		20	4.9	ug/Kg	1	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: PBF Logistics

Job ID: 410-50281-1

Client Sample ID: Pipe 81 (2) (Continued)

Lab Sample ID: 410-50281-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene	140		20	4.1	ug/Kg	1	✱	8270D	Total/NA
Lead	500		1.4	0.56	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 83 (2)

Lab Sample ID: 410-50281-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	5.5		5.4	0.65	ug/Kg	1	✱	8260C	Total/NA
Xylenes, Total	2.8	J	11	1.5	ug/Kg	1	✱	8260C	Total/NA
Benzene	3.8	J	5.4	0.54	ug/Kg	1	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	0.58	J	5.4	0.54	ug/Kg	1	✱	8260C	Total/NA
Anthracene	55		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	350		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	330		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	490		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	300		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Chrysene	370		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Fluorene	15	J	20	4.0	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	190		20	4.8	ug/Kg	1	✱	8270D	Total/NA
Pyrene	560		20	4.0	ug/Kg	1	✱	8270D	Total/NA
Lead	76		1.2	0.50	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 80 (2)

Lab Sample ID: 410-50281-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.8	J	5.9	0.47	ug/Kg	1	✱	8260C	Total/NA
1,3,5-Trimethylbenzene	1.4	J	5.9	0.59	ug/Kg	1	✱	8260C	Total/NA
Toluene	11		5.9	0.71	ug/Kg	1	✱	8260C	Total/NA
Xylenes, Total	12		12	1.7	ug/Kg	1	✱	8260C	Total/NA
Benzene	3.8	J	5.9	0.59	ug/Kg	1	✱	8260C	Total/NA
1,2,4-Trimethylbenzene	5.7	J	5.9	0.59	ug/Kg	1	✱	8260C	Total/NA
Anthracene	33		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	57		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	94		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	100		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	110		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Chrysene	65		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Fluorene	21		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	110		19	4.6	ug/Kg	1	✱	8270D	Total/NA
Pyrene	120		19	3.8	ug/Kg	1	✱	8270D	Total/NA
Lead	30		1.4	0.56	mg/Kg	1	✱	6010C	Total/NA

Client Sample ID: Pipe 50 (2)

Lab Sample ID: 410-50281-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	9.8	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	6.2	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	9.9	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	11	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Chrysene	9.7	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	10	J	21	5.0	ug/Kg	1	✱	8270D	Total/NA
Pyrene	13	J	21	4.1	ug/Kg	1	✱	8270D	Total/NA
Lead	320		1.7	0.69	mg/Kg	1	✱	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC