

January 6, 2023

Mr. Christopher Saber
Regional Project Manager – PADEP
Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335

Re: Proposed Monitoring Well Locations
Erie Coke Site (GTAC7-6-181)

Dear Mr. Saber:

From our conversations and correspondences, please find attached the summary tables of all soil, groundwater, surface water, sediment, and material samples collected for analysis from the Site Investigation being completed at the Department's Erie Coke Site located in Erie, PA. In addition, please also find attached site figures that exhibit the proposed 15 groundwater monitoring wells for this initial phase of the investigation.

It should be noted that the primary objective of this letter was to deliver these documents to the Department in a timely manner for thorough review prior to our final proposed well placement meeting in November 2022. The tables and figures included herein are in draft form. The attached data tables summarizing analyte criteria exceedances for each media are also attached to this letter to aid in review. As we discussed previously, these data tables of detections and criteria exceedances were used to formulate the proposed monitoring well locations and are in draft form.

From our previous meeting, it was agreed that the shallow monitoring wells will be installed at an approximate depth of 16 feet below ground surface (bgs) and the deep monitoring wells will be set at the soil/bedrock interface, typically 22-25 feet bgs. Each well will be constructed with a 10-foot long well screen and follow the installation methodologies in the Site Investigation Work Plan.

A summary of the wells proposed, and the considerations for their chosen locations, are provided below:

MW-1: (near SB-14 -Fig 1)

- Good example of more contamination w depth
- One of only soil sample w Thallium exceedance (and 6 other metals)
- Provide groundwater data for northwestern areas of site

MW-2: (near SB-03 - Fig 2)

- Coverage for the northwestern most area of the site
- Possibly write off investigating that area further if comes up clean after two events.

MW-3: (near 87-SB-01 -West of Loci/Diesel Shop - Fig 3)

- Provide upgradient coverage before groundwater flows toward main operations of plant.
- Assess potential impact from diesel shop

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MW-4: (near 80-SB03-GWG - Fig 4)

- One of most impacted Groundwater Grab (GWG) samples collected
- Located in area of other notable contamination

MW-5S: (near 104-SB01-GWG - 'Contaminant Ring' Area - Fig 5 and 3)

- Noted burn/disposal area during site operations – "Containment Ring"
- One of most impacted GWG samples collected
- Provide data from not only the contaminant ring area, but also groundwater flowing from the Loci Shop, etc further SW

MW-5D: (Deep well at soil/bedrock interface of MW-5S above - Fig 3)**MW-6S: (near 43-SB01 - Fig 6)**

- High benzene (VOC) hit – one of only a few hits of it on site
- 14 SVOC exceedances -most on site – shallow
- 6 SVOC exceedances at 12 ft depth

MW-6D: (Deep well at soil/bedrock interface for MW-6S above - Fig 6)**MW-7: (near SB-25 - Fig 7)**

- SVOC impact at surface and at depth
- Delineation to south
- Adjacent to one of the only still active areas on site (mixing area) – potential impact

MW-8S: (near 33-SB-02 - Fig 8)

- Impact at surface (SVOCs and metals) and at depth (metals – 10ft)
- Good proximity being between most of tank farm and Lake Erie
- Nested well to assess full vertical profile between tank farm and lake.

MW-8D: (Deep well at soil/bedrock interface for MW-8S above - Fig 8)**MW-9D: (near 31-SB01 -Fig 6)**

- Possible product present at depth
- Good proximity between tank farm and the batteries to assess groundwater flow

MW-10: (between 38-SB01 and 15-SB01-GWG -Fig 6)

- Good location to monitor shallow groundwater quality and flow beneath the tanks farm.
- Data valuable for assessing groundwater quality coming into the tank farm and flow beyond the tank farm

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MW-11S & MW-11D: (shallow/deep well nested down gradient of tank farm (Fig 8)

- Final location may be modified in the field based on outstanding GWG results from tank farm area.
- Shallow and deep well nest placed between the tank farm and Lake Erie will provide an evaluation of groundwater quality affects from the tanks as it flows toward the lakeshore.

Figure 9 exhibits all 15 of the proposed wells on one figure for ease of review. The well locations above are based on two meetings on November 18, 2022, and November 29, 2022. After review of the soil and groundwater results, it was decided that an additional three wells would be added to the originally planned 12 wells. The locations cited above had not been verified in the field for drill rig access, and therefore, may have been moved for accommodations.

OBG | Baker appreciates the opportunity to continue working with the Department on this interesting project. Please feel free to call me at (724) 457-8910 (cell) or email me at Ckupfer@mbakerintl.com if you have any questions or need further information.

Sincerely,

OBG | BAKER ENVIRONMENTAL SOLUTIONS JOINT VENTURE



Christopher H. Kupfer, P.G.
Project Manager

attachments

FIGURES



LEGEND

-----PROPERTY BOUNDARY (APPROX.)

IMAGE SOURCE: GOOGLE; 04/2022

SCALE: NOT TO SCALE

DATE: JANUARY 2023

DSN/DWN: CHK/RRR

FILE: 188511_COKE_12



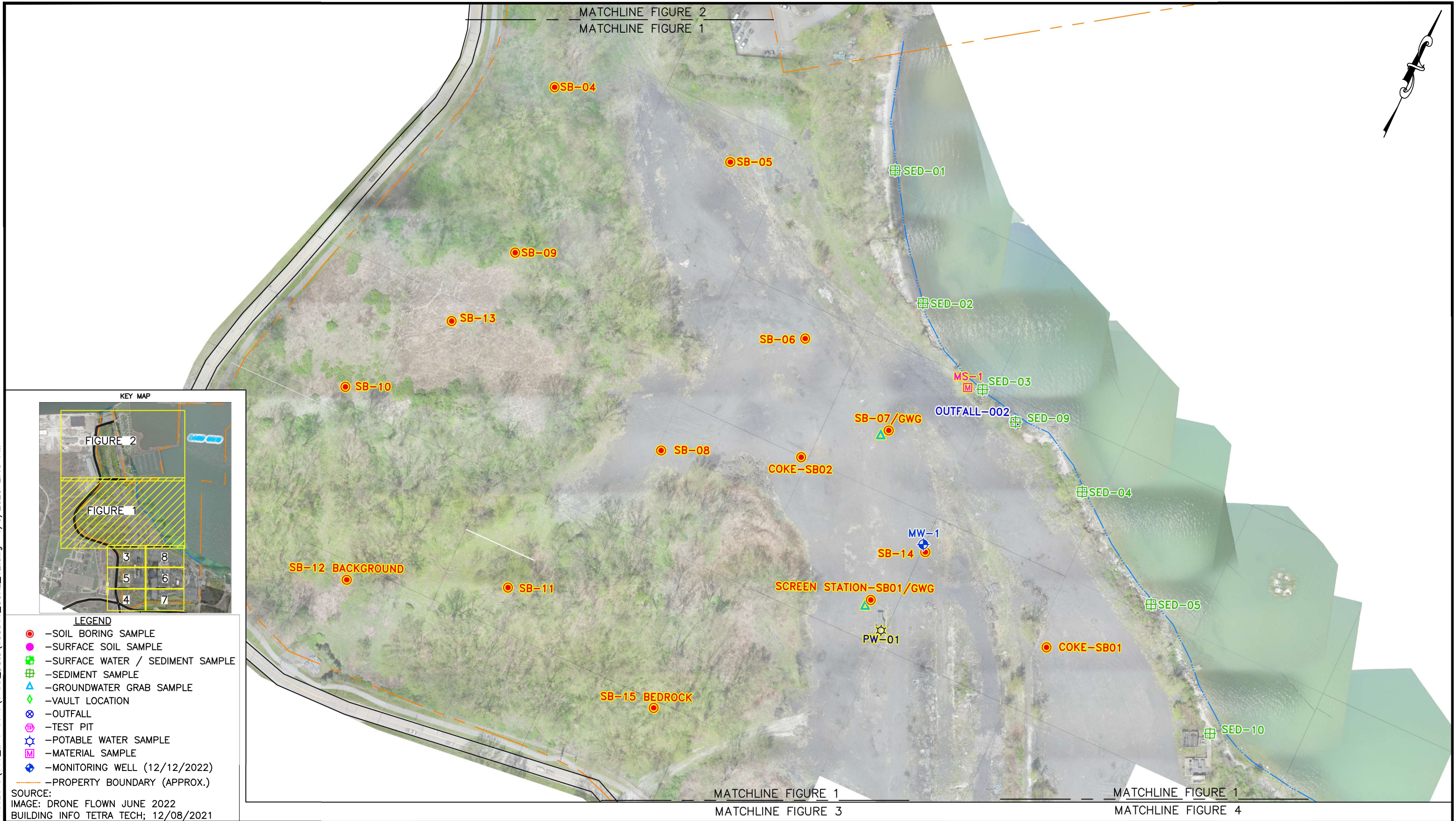
Part of Ramboll



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KEY
FIGURE NUMBER LAYOUT
ERIE COKE SITE
ERIE, PENNSYLVANIA

F:\PADEP_GTAC7\PROJECTS\009_Erie Coke\CADD_Data\188511_COKE_12.dwg 1/5/2023 2:40 PM



SCALE: 0 160
1" = 160'

S.O. NO.: 188511

DSN/DWN: CHK/RRR

DATE: OCTOBER 2022

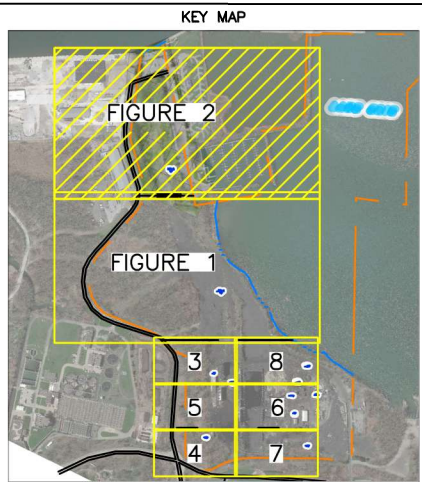
FILE: 188511_COKE_12

CHK: CHK



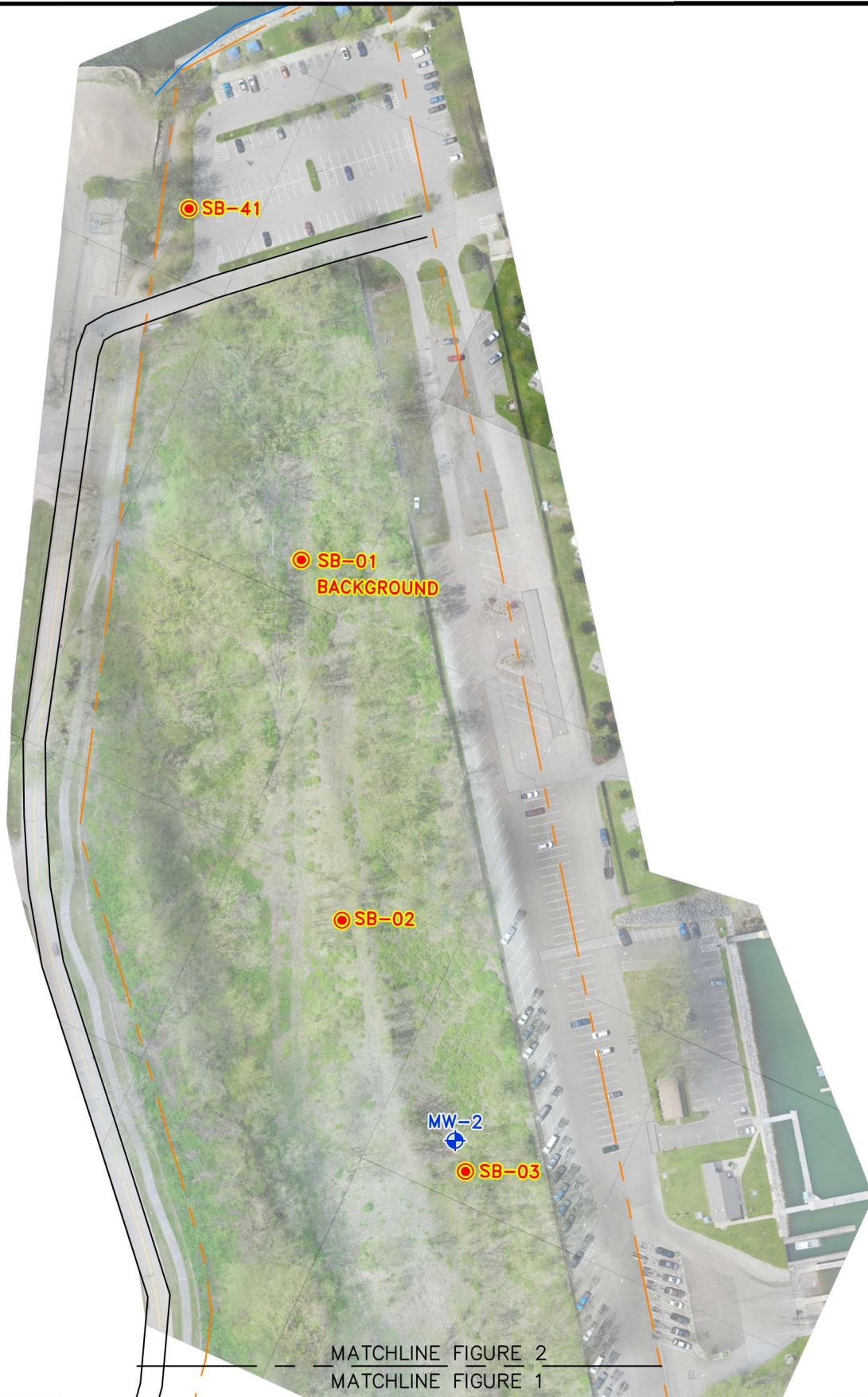
FIGURE 1
SAMPLE LOCATION MAP
INDUSTRIAL NORTH AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA

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- LEGEND**
- -SOIL BORING SAMPLE
 - -SURFACE SOIL SAMPLE
 - -SURFACE WATER / SEDIMENT SAMPLE
 - -SEDIMENT SAMPLE
 - ▲ -GROUNDWATER GRAB SAMPLE
 - ◆ -VAULT LOCATION
 - ⊗ -OUTFALL
 - ⊕ -TEST PIT
 - ⊕ -MONITORING WELL (12/12/2022)
 - PROPERTY BOUNDARY (APPROX.)

SOURCE:
IMAGE: DRONE FLOWN JUNE 2022



SCALE: 0 160
1" = 160'
S.O. NO.: 188511
DSN/DWN: CHK/RRR

DATE: JANUARY 2023
FILE: 188511_COKE_12
CHK: CHK

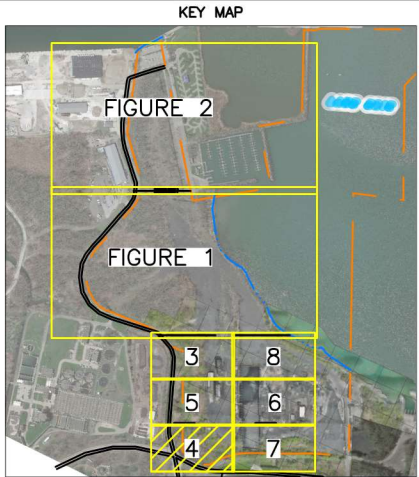


FIGURE 2
SAMPLE LOCATION MAP
MARINA AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA

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- LEGEND**
- -SOIL BORING SAMPLE
 - -SURFACE SOIL SAMPLE
 - -SURFACE WATER / SEDIMENT SAMPLE
 - -SEDIMENT SAMPLE
 - ▲ -GROUNDWATER GRAB SAMPLE
 - ◇ -VAULT LOCATION
 - ⊗ -OUTFALL
 - ⊕ -TEST PIT
 - ⊕ -MONITORING WELL (12/12/2022)
 - PROPERTY BOUNDARY (APPROX.)
- SOURCE:
IMAGE: DRONE FLOWN JUNE 2022

SCALE: 0 50
1" = 50'

S.O. NO.: 188511

DSN/DWN: CHK/RRR

DATE: OCTOBER 2022

FILE: 188511_COKE_12

CHK: CHK

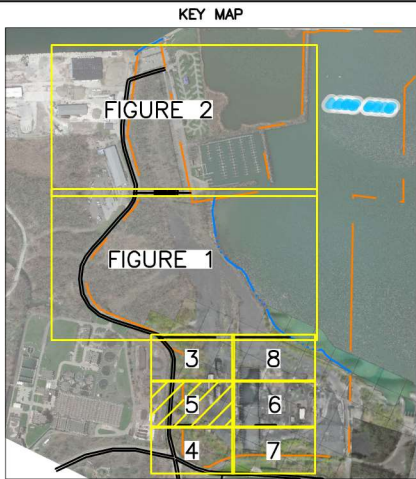


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FIGURE 4
SAMPLE LOCATION MAP
INDUSTRIAL SOUTH AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA

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- LEGEND**
- -SOIL BORING SAMPLE
 - -SURFACE SOIL SAMPLE
 - -SURFACE WATER / SEDIMENT SAMPLE
 - -SEDIMENT SAMPLE
 - ▲ -GROUNDWATER GRAB SAMPLE
 - ◇ -VAULT LOCATION
 - ⊗ -OUTFALL
 - ⊕ -TEST PIT
 - ⊕ -MONITORING WELL (12/12/2022)
 - -PROPERTY BOUNDARY (APPROX.)
- SOURCE:
IMAGE: DRONE FLOWN JUNE 2022

SCALE: 0 50
1" = 50'
S.O. NO.: 188511
DSN/DWN: CHK/RRR

DATE: OCTOBER 2022
FILE: 188511_COKE_12
CHK: CHK

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FIGURE 5
SAMPLE LOCATION MAP
INDUSTRIAL SOUTH AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA

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SCALE: 0 50
1" = 50'

S.O. NO.: 188511

DSN/DWN: CHK/RRR

DATE: OCTOBER 2022

FILE: 188511_COKE_12

CHK: CHK

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SCALE: 0 50
1" = 50'

S.O. NO.: 188511

DSN/DWN: CHK/RRR

DATE: OCTOBER 2022

FILE: 188511_COKE_12

CHK: CHK

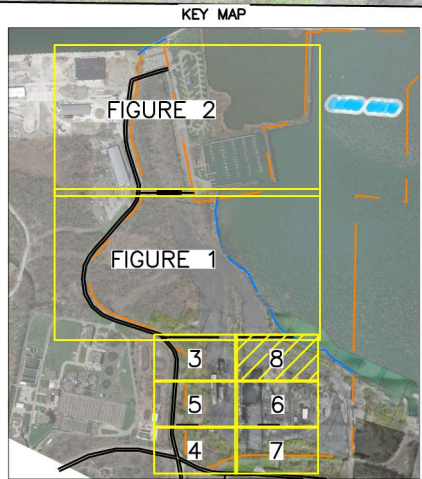


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FIGURE 7
SAMPLE LOCATION MAP
INDUSTRIAL SOUTH AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA

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- LEGEND**
- SOIL BORING SAMPLE
 - SURFACE SOIL SAMPLE
 - SURFACE WATER / SEDIMENT SAMPLE
 - SEDIMENT SAMPLE
 - GROUNDWATER GRAB SAMPLE
 - VAULT LOCATION
 - OUTFALL
 - TEST PIT
 - MONITORING WELL (12/12/2022)
 - PROPERTY BOUNDARY (APPROX.)
- SOURCE: DRONE FLOWN JUNE 2022

SCALE: 0 50
1" = 50'

S.O. NO.: 188511

DSN/DWN: CHK/RRR

DATE: OCTOBER 2022

FILE: 188511_COKE_12

CHK: CHK



FIGURE 8
SAMPLE LOCATION MAP
INDUSTRIAL SOUTH AREA
ERIE COKE SITE
ERIE, PENNSYLVANIA



FIGURE 9
MONITORING WELL LOCATION MAP
ERIE COKE SITE
ERIE, PENNSYLVANIA

TABLES

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		7-SS01	15-SS01	15-SS02	15-SB01-7.5	21-SS01	21-SB01-1	21-SB01-12	21-SS02	22-SS01	22-SB01-1	22-SB01-14	22-SS02	23-SS01	23-SB01-1
Date		Surface Soil	Subsurface Soil	9/15/2022	9/19/2022	9/19/2022	10/14/2022	9/19/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	1.0	1.0	7.5	1.0	1.0	12.0	1.0	1.0	1.0	1.0	14.0	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.5 U^c	4.3 U	4.7 U	3.6 U^c	4.6 U	6 UB^c	4 UB^c	4.5 U	4.1 U^c	3.9 UB^c	3.7 UB^c	4.8 U	4.2 U^c	11 JB^c
Benzene	500	500	500	1.6 U	1.6 U	1.7 U	1.3 U	1.7 U	2.2 U	1.4 U	1.6 U	1.5 U	1.4 U	1.3 U	1.7 U	1.5 U	1.4 U
Carbon disulfide	150,000	620,000	620,000	4.6 U	4.5 U	4.8 U	3.7 U	4.7 U	6.2 U	4.1 U	4.6 U	4.2 U	4 U	3.8 U	4.9 U	4.3 U	3.9 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.8 U	2.7 U	2.9 U	2.2 U	2.8 U	3.7 U	2.4 U	2.8 U	2.5 U	2.4 U	2.3 U	2.9 U	2.6 U	2.3 U
Ethylbenzene	70,000	70,000	70,000	2.1 U	2.1 U	2.2 U	1.7 U	2.2 U	2.9 U	1.9 U	2.1 U	1.9 U	1.9 U	1.7 U	2.3 U	2 U	1.8 U
Methylcyclohexane	NE	NE	NE	2.8 U	2.7 U	2.9 U	2.2 U	2.8 U	3.7 U	2.5 U	2.8 U	2.5 U	2.4 U	2.3 U	3 U	2.6 U	2.3 U
Styrene	24,000	24,000	24,000	1.7 U	1.7 U	1.8 U	1.4 U	1.8 U	2.3 U	1.5 U	1.7 U	1.6 U	1.5 U	1.4 U	1.8 U	1.6 U	1.5 U
Toluene	100,000	100,000	100,000	1.7 U	1.6 U	1.7 U	1.3 U	1.7 U	2.2 U	1.5 U	1.7 U	1.5 U	1.4 U	1.4 U	1.8 U	1.6 U	1.4 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.4 U	8 U	8.7 U	6.7 U	8.4 U	11 U	7.4 U	8.3 U	7.6 U	7.3 U	6.8 U	8.8 U	7.8 U	7 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	290	210 U	290 U	12 U	450 J	620 U	14 U	350 U	1100	510 U	13 U	310 U	400 U	530 U
2,4-Dimethylphenol	69,000	190,000	190,000	52 U	200 U	270 U	11 U	260 U	570 U	13 U	320 U	340 U	470 U	12 U	280 U	370 U	480 U
2-Methylnaphthalene	25,000	100,000	100,000	1200	890	720	7	2400	1300	2 J	940	6000	970	2 J	1500	720	2000
2-Methylphenol	170,000	490,000	490,000	44 U	170 U	230 U	9.8 U	220 U	490 U	11 U	280 U	290 U	400 U	13 J	240 U	310 U	410 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	54 U	210 U	280 U	12 U	270 U	600 U	13 U	340 U	360 U	490 U	12 U	290 U	380 U	510 U
4-Chloroaniline	420	1,800	1,800	40 U	150 U	210 U	8.9 U	200 U	450 U	9.9 U	250 U	270 U	370 U	9.2 U	220 U	290 U	380 U
Acenaphthene	2,600,000	4,700,000	4,700,000	70	220	280	3.4 J	230	150 J	2.2 U	350	770	170 J	2 U	210	140 J	200 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	930	4100	7800	17	6300	3100	1.9 J	9100	11000	5100	30	5500	5600	6400
Acetophenone	350,000	970,000	970,000	54 U	210 U	280 U	12 U	350 J	600 U	13 U	340 U	360 U	500 U	12 U	420 J	390 U	510 U
Anthracene	350,000	350,000	350,000	650	1800	4600	14	3500	1600	2 U	5900	19000	3300	11	2800	4800	4800
Benzaldehyde	NE	NE	NE	19 U	73 U	99 U	4.2 U	95 U	210 U	4.7 U	120 U	190 J	170 U	4.4 U	100 U	140 U	180 U
Benzo[a]anthracene	6,100	130,000	340,000	2100	4900	17000	19	8700	7600	3.4 U	23000	55000 E	13000	18	8800	18000	19000
Benzo[a]pyrene	4,200	46,000	46,000	1800	7200	16000	12	12000	7800	3.3 U	22000	40000	14000	44	10000	17000	17000
Benzo[b]fluoranthene	3,500	76,000	170,000	3800	9000	20000	14	16000	10000	1.9 U	30000	53000 E	17000	43	14000	28000	21000
Benzo[g,h,i]perylene	180,000	180,000	180,000	2200	6100	13000	10	11000	7600	1.6 U	19000	32000	14000	58	11000	18000	16000
Benzo[k]fluoranthene	3,500	76,000	610,000	890	2700	7300	5.7 J	5500	3800	2.3 U	9700	14000	7400	19	4600	7200	8600
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	160 U	620 U	850 U	36 U	820 U	1800 U	40 U	1000 U	1100 U	1500 U	37 U	890 U	1200 U	1500 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	110 U	400 U	550 U	23 U	530 U	1200 U	26 U	660 U	700 U	960 U	24 U	570 U	750 U	990 U
Carbazole	21,000	89,000	89,000	190	370	880	3.5 J	1000	340	3.4 J	1100	5500	660	6.5 J	800	1800	1300
Chrysene	35,000	230,000	230,000	2500	5100	16000	18	9000	7300	4.2 U	21000	44000 E	13000	22	9200	18000	17000
Dibenz(a,h)anthracene	1,000	22,000	270,000	840	1700	3800	4.4 U	3300	2300	4.8 U	5200	9500	4000	14	3100	6400	5100
Dibenzofuran	90,000	250,000	250,000	340	500 J	620 J	20 J	1300	630 U	14 U	1100	6200	740 J	13 U	940	750 J	1400
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	730	260 U	350 U	15 U	340 U	750 U	44	420 U	440 U	610 U	110	370 U	480 U	630 U
Fluoranthene	3,200,000	3,200,000	3,200,000	2200	6000	29000	34	14000	9900	2.5 J	35000	76000 E	19000	16	13000	20000	32000
Fluorene	2,800,000	3,800,000	3,800,000	120	230	500	20	420	210 J	1.5 U	700	9800	370	2.8 J	380	600	650
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	2100	5800	12000	8.4	11000	7300	3.8 U	18000	30000	13000	54	10000	18000	15000
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	45 U	170 U	240 U	10 U	230 J	500 U	11 U	280 U	550 J	410 U	42	240 U	320 U	420 U
Naphthalene	13,000	25,000	25,000	1800	3400	3100	7.4	12000	2200	8.2	4200	8600	3300	15	6600	3000	7800
Phenanthrene	10,000,000	10,000,000	10,000,000	1700	1600	5500	56	5000	2100	2.8 J	8200	67000 E	5000	7.6	4300	7100	14000
Phenol	200,000	200,000	200,000	46 U	180 U	240 U	10 U	450 J	520 U	11 U	290 U	530 J	420 U	250	500 J	330 U	440 U
Pyrene	2,200,000	2,200,000	2,200,000	2400	5700	24000	23	12000	11000	1.8 U	32000	94000 E	20000	19	11000	24000	30000

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		7-SS01	15-SS01	15-SS02	15-SB01-7.5	21-SS01	21-SB01-1	21-SB01-12	21-SS02	22-SS01	22-SB01-1	22-SB01-14	22-SS02	23-SS01	23-SB01-1	
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	9/15/2022	9/19/2022	9/19/2022	10/14/2022	9/19/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022	
Depth (ft bgs)				1.0	1.0	1.0	7.5	1.0	1.0	12.0	1.0	1.0	1.0	1.0	14.0	1.0	1.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																		
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	0.15 U	---	---	---	---	---	---	---	0.094 UFL	
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	0.14 U	---	---	---	---	---	---	---	0.092 UFL	
Aldrin	460	1,900	1,900	---	---	---	---	---	0.22 U	---	---	---	---	---	---	---	0.14 UFL	
alpha-BHC	46	200	200	---	---	---	---	---	0.17 U	---	---	---	---	---	---	---	0.11 UFL	
beta-BHC	210	880	880	---	---	---	---	---	0.19 U	---	---	---	---	---	---	---	0.12 UFL	
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	0.18 U	---	---	---	---	---	---	---	0.11 UFL	
delta-BHC	NE	NE	NE	---	---	---	---	---	0.22 U	---	---	---	---	---	---	---	0.14 UFL	
Dieldrin	110	470	470	---	---	---	---	---	0.18 U	---	---	---	---	---	---	---	0.11 UFL	
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	0.19 U	---	---	---	---	---	---	---	0.12 UFL	
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	0.16 U	---	---	---	---	---	---	---	0.099 UFL	
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	0.33 U	---	---	---	---	---	---	---	0.21 UFL	
Endrin	5,500	5,500	5,500	---	---	---	---	---	0.13 U	---	---	---	---	---	---	---	0.085 UFL	
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	0.18 U	---	---	---	---	---	---	---	0.12 UFL	
Heptachlor	680	680	680	---	---	---	---	---	0.22 U	---	---	---	---	---	---	---	0.14 UFL	
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	0.28 U	---	---	---	---	---	---	---	0.18 UFL	
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	0.17 U	---	---	---	---	---	---	---	0.1 UFL	
PCBs (µg/kg) ⁽⁸⁾																		
PCB-1248	9,300	46,000	67,000	4.6 U	4.7 U	23	4.1 U	4.5 U	6.9 U	4.4 U	4.5 U	4.1 U	4.3 U	4.3 U	4.9 U	4.3 U	4.4 UH	
PCB-1254	4,400	64,000	380,000	5.7 U	5.8 U	6 U	5.2 U	12 J	8.6 U	5.6 U	5.7 U	5.2 U	5.3 U	5.4 U	6.1 U	5.4 U	5.5 UH	
PCB-1260	9,300	46,000	630,000	51	5.5 U	10 J	4.9 U	5.4 U	8.1 U	5.3 U	5.4 U	4.9 U	5.1 U	5.1 U	5.8 U	5.1 U	5.2 UH	
Dioxins (ng/kg)																		
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	310 B	---	---	---	---	---	---	---	53 B	
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	12 B	---	---	---	---	---	---	---	10 B	
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	0.96 JB	---	---	---	---	---	---	---	0.95 JB	
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	0.99 JIB	---	---	---	---	---	---	---	1.2 JB	
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	2.9 JB	---	---	---	---	---	---	---	3.3 JB	
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	3.6 JB	---	---	---	---	---	---	---	2.4 JB	
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	1.7 JB	---	---	---	---	---	---	---	2.2 JB	
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	1.8 JB	---	---	---	---	---	---	---	1.7 JB	
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	0.41 JB	---	---	---	---	---	---	---	0.8 JB	
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	1.5 JIB	---	---	---	---	---	---	---	1.5 JB	
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	2 JB	---	---	---	---	---	---	---	3.4 JB	
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	1.6 JB	---	---	---	---	---	---	---	1.8 JB	
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	2.4 JB	---	---	---	---	---	---	---	4.3 JB	
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	0.21 JB	---	---	---	---	---	---	---	0.043 UB	
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	2.5 B	---	---	---	---	---	---	---	19 B	
OCDD	NE	NE	NE	---	---	---	---	---	2000 B	---	---	---	---	---	---	---	320 B	
OCDF	NE	NE	NE	---	---	---	---	---	34 B	---	---	---	---	---	---	---	22 B	

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		7-SS01	15-SS01	15-SS02	15-SB01-7.5	21-SS01	21-SB01-1	21-SB01-12	21-SS02	22-SS01	22-SB01-1	22-SB01-14	22-SS02	23-SS01	23-SB01-1
Date		Surface Soil	Subsurface Soil	9/15/2022	9/19/2022	9/19/2022	10/14/2022	9/19/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022	10/12/2022	9/19/2022	9/15/2022	10/12/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	1.0	1.0	7.5	1.0	1.0	12.0	1.0	1.0	1.0	1.0	14.0	1.0	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	6000	7500	3800 F2	860	6900	22000	44000	14000	5800	19000	16000	12000	5700	8200
Antimony	27	27	27	0.36 J	6	1.3	0.26 U	2.6	1.7 U	1.6 U	3	1.4	1.2 U	0.31 U	3	0.74 J	1.8
Arsenic	12	29	29	3.4	8.2	7	0.81 J	15	13	3.4 U	10	8.6	11	0.91 J	16	8.2	12
Barium	8,200	8,200	8,200	57	98	83 FL	8.5 J	82	220	710	110	95	240	270	93	75	370
Beryllium	320	320	320	0.8	1	0.56	0.092 U	0.62	4.1	6.2	1.8	0.64	3.6	2.2	1.3	0.81	1.3
Cadmium	38	38	38	0.27 J	0.26 J	0.33 J	0.18 J	0.37 J	0.67 J	0.4 U	0.21 J	0.17 J	0.55 J	0.074 U	0.13 J	0.47	0.5
Calcium	NE	NE	NE	23000	12000	29000 4	180000	3200	110000	210000	27000	15000	87000	74000	6700	47000	100000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	9.8	14	15 FL	2.6	40	33	2.5 U	20	9.3	15	0.81	17	13	20
Cobalt	45	130	130	2.3 J	4.9 J	4.2 J	0.6 U	11	9.6	0.82 J	5.1 J	4.8	4.4	0.71 U	8.3	4.2 J	6.6
Copper	7,200	43,000	43,000	29	230 B	43 B	4	220 B	46	8.1 U	66 B	77	41	1.5 J	120 B	57	110
Iron	150,000	190,000	190,000	15000	44000	17000 4	6300	35000	48000 B	1100 B	37000	17000	27000 B	830	50000	31000	36000 B
Lead	450	450	450	27	96	75 FL	2.1	130	81	4.7 U	84	43	100	0.88 U	100	45	210
Magnesium	NE	NE	NE	4000	37000	9200 FL	15000	9600	35000	38000	5100	5200	21000	13000	3300	3400	16000
Manganese	2,000	2,000	2,000	550	490	360	180	550	1700	2100	1200	280	1500	860	570	780	1100
Mercury	10	10	10	0.29	0.24	0.7	0.032	0.37	0.19	0.016 U	0.28	0.22	0.014 U	0.022 U	0.76	0.94	0.36
Nickel	650	650	650	10	23	34 FL	3 J	74	34	1.2 J	18	23	16	0.51 U	25	13	48
Potassium	NE	NE	NE	460	610	470 J	110 J	710	2300 J	1800 J	1300	600	1400 J	1400	1000	3000	770
Selenium	26	26	26	0.81	2	2.3	1.4	5.3	2.6 U	5.4	3.7	0.92	2 J	1.9	7.3	1.8	3.1
Silver	84	84	84	0.073 U	0.11 U	0.11 U	0.088 U	0.11 U	0.6 U	0.56 U	0.11 U	0.083 U	0.4 U	0.11 U	0.11 U	0.093 U	0.12 J
Sodium	NE	NE	NE	120 J	160 J	140 J	91 J	65 J	610 J	700 J	270 J	90 J	550 J	340 J	110 J	290 J	220 J
Thallium	2.2	14	14	0.2 U	0.29 U	0.31 U	0.24 U	0.3 U	0.33 U	0.31 U	0.3 U	0.23 U	0.22 U	0.29 U	0.3 U	0.26 U	0.22 U
Vanadium	15	220	680	4.7	13	9.4	3.8 J	16	24 J	7.8 J	19	7.3	12 J	2.6 J	17	16	12
Zinc	12,000	12,000	12,000	81	230 B	130 B	13	270 B	220	16	73 B	130	220	1.5 J	210 B	520	300

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		23-SB01-1D	23-SB01-14	23-SS02	31-SS01	31-SB01-1	31-SB01-10	31-SS02	31-SB02-1	31-SB02-10	33-SS01	33-SB01-1	33-SB01-5.5	33-SS02
Date		Surface Soil	Subsurface Soil	10/12/2022	10/12/2022	9/15/2022	10/3/2022	10/13/2022	10/13/2022	10/3/2022	10/13/2022	10/13/2022	9/20/2022	10/13/2022	10/13/2022	9/20/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	14.0	1.0	1.0	1.0	1.0	10.0	1.0	1.0	10.0	1.0	1.0	5.5
Volatile Organic Compounds (µg/kg) ⁽³⁾																
Acetone	3,100,000	8,800,000	8,800,000	3.8 UB^c	4.2 UB^c	5.5 U^c	4.7 U^c	5 U^c	4.4 U^c	4.3 U^c	4.3 U^c	4.2 U^c	3.8 U^c	4.5 U^c	4.6 U^c	4.1 U^c
Benzene	500	500	500	1.4 U	1.5 U	2 U	1.7 U	1.8 U	1.6 U	1.6 U	1.6 U	2.5 J	1.4 U	1.6 U	2.3 J	1.5 U
Carbon disulfide	150,000	620,000	620,000	3.9 U	4.3 U	5.6 U	4.8 U	5.2 U	4.6 U	4.4 U	4.4 U	4.3 U	3.9 U	4.6 U	4.7 U	4.2 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.3 U	2.6 U	3.3 U	2.9 U	3.1 U	2.7 U	2.7 U	2.6 U	2.6 U	2.3 U	2.8 U	2.8 U	2.5 U
Ethylbenzene	70,000	70,000	70,000	1.8 U	2 U	2.6 U	2.2 U	2.4 U	2.1 U	2.1 U	2 U	2 U	1.8 U	2.1 U	3.7 J	1.9 U
Methylcyclohexane	NE	NE	NE	2.4 U	2.6 U	3.4 U	2.9 U	3.1 U	2.7 U	2.7 U	2.7 U	2.6 U	2.4 U	2.8 U	2.8 U	2.5 U
Styrene	24,000	24,000	24,000	1.5 U	1.6 U	2.1 U	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.6 U	1.5 U	1.7 U	1.8 U	1.6 U
Toluene	100,000	100,000	100,000	1.4 U	1.5 U	2 U	1.7 U	1.9 U	1.6 U	1.6 U	1.6 U	1.9 J	1.4 U	1.7 U	1.7 U	1.5 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	7.1 U	7.7 U	10 U	8.6 U	9.3 U	8.2 U	8 U	8 U	7.8 U	7 U	8.3 U	8.5 U	7.5 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																
1,1'-Biphenyl	370	1,500	1,500	540 U	13 U	400 U	420 U	6100 U	89 J	20 J	2700 U	13 U	1400 U	59 J	14 U	2800 U
2,4-Dimethylphenol	69,000	190,000	190,000	500 U	12 U	360 UFL	390 U	5600 U	40 U	12 U	2500 U	12 U	1300 U	53 U	13 U	2600 U
2-Methylnaphthalene	25,000	100,000	100,000	1700	2.2 J	1700	840	1800 J	370	64	3300	21	920	300	14	2700
2-Methylphenol	170,000	490,000	490,000	430 U	11 U	310 U	330 U	4800 U	34 U	11 U	2100 U	10 U	1100 U	45 U	11 U	2200 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	520 U	13 U	380 UFL	410 U	5900 U	42 U	13 U	2600 U	13 U	1300 U	56 U	13 U	2700 U
4-Chloroaniline	420	1,800	1,800	390 U	9.7 U	280 UFL	300 U	4400 U	31 U	9.7 U	2000 U	9.5 U	980 U	42 U	9.9 U	2000 U
Acenaphthene	2,600,000	4,700,000	4,700,000	190 J	2.1 U	63 U	100 J	2100 J	39	11	750 J	2.1 U	210 U	33	2.2 U	440 U
Acenaphthylene	2,400,000	6,600,000	6,600,000	5200	10	4600	2700	50000	650	130	14000	21	5300	400	27	22000
Acetophenone	350,000	970,000	970,000	530 U	13 U	380 U	410 U	5900 U	42 U	13 U	2600 U	13 U	1300 U	56 U	28 J	2700 U
Anthracene	350,000	350,000	350,000	2800	3.7 J	2400 FH	2100	25000	660	190	23000	20	6500	440	17	15000
Benzaldehyde	NE	NE	NE	180 U	4.6 U	130 U	140 U	2100 U	15 U	4.6 U	930 U	4.5 U	460 U	20 U	4.7 U	950 U
Benzo[a]anthracene	6,100	130,000	340,000	13000	3.6 J	11000	9900	120000	2000	960	55000	38	33000	1200	27	70000
Benzo[a]pyrene	4,200	46,000	46,000	14000	9.1	14000	7900	100000	1700	590	44000	32	25000	860	37	57000
Benzo[b]fluoranthene	3,500	76,000	170,000	18000	10	19000	14000	120000	2200	1100	60000	47	40000	1200	40	86000
Benzo[g,h,i]perylene	180,000	180,000	180,000	14000	16	13000	9000	64000	1400	520	35000	35	18000	770	42	39000
Benzo[k]fluoranthene	3,500	76,000	610,000	6300	3.7 J	6800	5200	51000	820	320	21000	19	14000	510	17	31000
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	1600 U	39 U	1200 U	1200 U	18000 U	130 U	39 U	8000 U	38 U	4000 U	170 U	40 U	8200 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	1000 U	25 U	750 U	800 U	11000 U	82 U	25 U	5100 U	25 U	2600 U^c	110 U	26 U	5300 U^c
Carbazole	21,000	89,000	89,000	810	5 J	780	990	2000 J	230	120	10000	10	3300	150	7.6	3800
Chrysene	35,000	230,000	230,000	13000	4.1 U	9600	10000	110000	1900	1100	54000	42	34000	1300	30	70000
Dibenz(a,h)anthracene	1,000	22,000	270,000	4400	5.3 J	3600	2800	22000	410	200	11000	12	6200	270	9.7	14000
Dibenzofuran	90,000	250,000	250,000	1200 J	14 U	990 JFL	740 J	6200 U	320	69	11000	16 J	1400 U	250	14 U	2800 J
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	650 U	36	480 UFL	510 U	7300 U	52 U	21 J	3300 U	16 U	1600 U	69 U	17 U	3400 U
Fluoranthene	3,200,000	3,200,000	3,200,000	17000	4.2 J	12000	13000	180000	3900	1200	150000	93	43000	2200	63	110000
Fluorene	2,800,000	3,800,000	3,800,000	310	1.4 J	290	480	2200 J	410	62	6000	15	1400	220	7.8	1700
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	13000	14	12000	7700	64000	1400	500	33000	33	17000	730	35	40000
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	440 U	11 U	320 U	340 U	4900 U	35 U	16 J	2200 U	11 U	1200 J	46 U	11 U	2300 U
Naphthalene	13,000	25,000	25,000	7400	16	7500	5700	4700	1600	330	12000	150	7900	710	29	30000
Phenanthrene	10,000,000	10,000,000	10,000,000	4700	3.2 J	3800	6600	6400	1900	710	99000	72	20000	1500	35	31000
Phenol	200,000	200,000	200,000	450 U	17 J	330 J	350 U	5100 U	36 U	20 J	2300 U	11 U	1100 U	48 U	11 U	2300 U
Pyrene	2,200,000	2,200,000	2,200,000	18000	4.1 J	15000	14000	130000	2600	1200	90000	54	44000	1400	44	83000

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		23-SB01-1D	23-SB01-14	23-SS02	31-SS01	31-SB01-1	31-SB01-10	31-SS02	31-SB02-1	31-SB02-10	33-SS01	33-SB01-1	33-SB01-5.5	33-SS02
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/12/2022	10/12/2022	9/15/2022	10/3/2022	10/13/2022	10/13/2022	10/3/2022	10/13/2022	10/13/2022	9/20/2022	10/13/2022	10/13/2022	9/20/2022
Depth (ft bgs)				1.0	14.0	1.0	1.0	1.0	10.0	1.0	1.0	10.0	1.0	1.0	5.5	1.0
Pesticides (µg/kg) ⁽⁶⁾																
4,4'-DDD	30,000	120,000	120,000	0.098 U	---	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	0.095 U	---	---	---	---	---	---	---	---	---	---	---	---
Aldrin	460	1,900	1,900	0.14 U	---	---	---	---	---	---	---	---	---	---	---	---
alpha-BHC	46	200	200	0.11 U	---	---	---	---	---	---	---	---	---	---	---	---
beta-BHC	210	880	880	0.13 U	---	---	---	---	---	---	---	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	0.12 U	---	---	---	---	---	---	---	---	---	---	---	---
delta-BHC	NE	NE	NE	0.15 U	---	---	---	---	---	---	---	---	---	---	---	---
Dieldrin	110	470	470	0.12 U	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	0.13 U	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	0.1 U	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	0.21 U	---	---	---	---	---	---	---	---	---	---	---	---
Endrin	5,500	5,500	5,500	0.088 U	---	---	---	---	---	---	---	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	0.12 U	---	---	---	---	---	---	---	---	---	---	---	---
Heptachlor	680	680	680	0.15 U	---	---	---	---	---	---	---	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	0.18 U	---	---	---	---	---	---	---	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	0.11 U	---	---	---	---	---	---	---	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																
PCB-1248	9,300	46,000	67,000	4.4 U	4.4 U	4.5 U	4.7 U	5.1 U	4.7 U	4.5 U	4.4 U	4.3 U*3	4.5 U	4.8 U	4.6 U*3	4.6 U
PCB-1254	4,400	64,000	380,000	5.5 U	5.5 U	5.6 U	54	6.4 U	5.9 U	5.6 U	5.5 U	5.4 U	5.6 U	6 U	5.8 U	5.7 U
PCB-1260	9,300	46,000	630,000	5.2 U	5.2 U	5.3 U	5.6 U	6.1 U	5.6 U	5.3 U	5.2 U	5.1 U	5.3 U	5.6 U	5.5 U	5.4 U
Dioxins (ng/kg)																
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	37 B	---	---	---	---	---	---	130 B	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	9.3 B	---	---	---	---	---	---	13 B	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	0.8 JB	---	---	---	---	---	---	0.72 J*5-B	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	0.85 JB	---	---	---	---	---	---	4.7 J	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	2.7 JB	---	---	---	---	---	---	4.5 J	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	2.1 JB	---	---	---	---	---	---	14 B	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	2.1 JB	---	---	---	---	---	---	3.2 JB	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	1.3 JB	---	---	---	---	---	---	12	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	0.47 JB	---	---	---	---	---	---	0.74 JIB	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	1 JIB	---	---	---	---	---	---	7.1 I	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	2.8 JB	---	---	---	---	---	---	3.9 J*5-	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	1.5 JB	---	---	---	---	---	---	2 JB	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	3.6 JB	---	---	---	---	---	---	5.2 JB	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	0.22 JB	---	---	---	---	---	---	2.6	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	16 B	---	---	---	---	---	---	5.9 I	---	---	---	---	---
OCDD	NE	NE	NE	230 B	---	---	---	---	---	---	510 B	---	---	---	---	---
OCDF	NE	NE	NE	16 B	---	---	---	---	---	---	18 B	---	---	---	---	---

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		23-SB01-1D	23-SB01-14	23-SS02	31-SS01	31-SB01-1	31-SB01-10	31-SS02	31-SB02-1	31-SB02-10	33-SS01	33-SB01-1	33-SB01-5.5	33-SS02
Date		Surface Soil	Subsurface Soil	10/12/2022	10/12/2022	9/15/2022	10/3/2022	10/13/2022	10/13/2022	10/3/2022	10/13/2022	10/13/2022	9/20/2022	10/13/2022	10/13/2022	9/20/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	14.0	1.0	1.0	1.0	10.0	1.0	1.0	10.0	1.0	1.0	5.5	1.0
Metals (mg/kg)																
Aluminum	190,000	190,000	190,000	8600	55000	6000	7300	5100	9100	5400	8700	15000	17000	1400	15000	6200
Antimony	27	27	27	1.8	2.1 U	4.8	0.28 U	0.49 J	0.29 U	0.27 U	0.24 U	0.28 U	1.1	0.35 J	0.28 J	1.2
Arsenic	12	29	29	12	5.4 J	15	11	4.1	1.8	5.2	3.4	1.5	8.9	2	5.9	7.4
Barium	8,200	8,200	8,200	330	580	110	120	56	81	45	99	130	130	49	180	99
Beryllium	320	320	320	1.3	12	0.75	1.2	0.76	1.4	0.24 J	1.1	2.2	2.2	0.22 J	1.9	1.2
Cadmium	38	38	38	0.51	0.52 U	0.48	0.51	0.1 J	0.069 U	0.48	0.17 J	0.067 U	1.2	0.082 U	0.057 U	0.66
Calcium	NE	NE	NE	52000	180000	33000	22000	13000	35000	7800	34000	76000	34000	14000	64000	18000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	20	3.2 J	15	19	2.6	9	7.2	3.3	4.6	35	4	3.8	14
Cobalt	45	130	130	6.3	5 U	6.2	6.1	0.76 J	0.75 J	1.4 J	1 J	0.64 U	4.6 J	1 J	0.83 J	3.3 J
Copper	7,200	43,000	43,000	97	11 U	180	65	12	5.7	12	8.3	3.2	56 B	8.9	11	45 B
Iron	150,000	190,000	190,000	47000 B	1600 B	45000	34000	8400	8600	5200	7800	6000	45000	6200	9400	25000
Lead	450	450	450	230	6.2 U	450	120	38	7	58	24	1.4	75	7.6	2.1	130
Magnesium	NE	NE	NE	12000	40000	5600	3500	2100	6200	630	5900	11000	6400	6900	9100	3100
Manganese	2,000	2,000	2,000	1000	2100	810	460	210	770	160	590	1200	1000	110	720	490
Mercury	10	10	10	0.48	0.015 U	0.023 U	2.1	0.76	0.021 U	0.092	0.34	0.02 U	0.23	0.054	0.013 U	2.5
Nickel	650	650	650	38	3.6 U	32	27	2.6 J	2.7 J	6.8	3.3	1.6 J	30	3.5 J	3.2	12
Potassium	NE	NE	NE	810	5300	430	480	250 J	610	610	700	760	770	140 J	830	490 J
Selenium	26	26	26	2.5	6.9 J	5.5	2	1.4	1	0.41 U	1.2	1.4	2.4	0.51 U	2.1	1.9
Silver	84	84	84	0.14 J	0.74 U	0.29 J	0.12 U	0.084 U	0.098 U	0.09 U	0.083 U	0.095 U	0.11 U	0.12 U	0.081 U	0.1 U
Sodium	NE	NE	NE	230 J	1000 J	100 J	140 J	78 J	180 J	160 J	200 J	340 J	190 J	57 U	400	150 J
Thallium	2.2	14	14	0.22 U	2 U	0.17 U	0.26 U	0.23 U	0.27 U	1.1 J	0.23 U	0.26 U	0.29 U	0.32 U	0.22 U	0.28 U
Vanadium	15	220	680	16	6 J	17	11	2.9 J	7.5	7.5	3.5 J	6.7	9.8	2.9 J	4.9	8.2
Zinc	12,000	12,000	12,000	270	8.4 U	370	200	43	12	68	27	5.9	860 B	20	6.2	91 B

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		33-SB02-1	33-SB02-10	37-SB01-1	37-SB01-10.5	38-SB01-1	39-SB01-1	39-SB01-10.5	43-SB01-1	43-SB01-1D	43-SB01-6	43-SB01-12	44-SS01	44-SB01-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/14/2022	10/14/2022	10/14/2022	10/14/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/3/2022	10/12/2022
Depth (ft bgs)				1.0	10.0	1.0	10.5	1.0	1.0	10.5	1.0	1.0	6.0	12.0	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																
Acetone	3,100,000	8,800,000	8,800,000	7.3 J	6 J	4.2 U	14 J	4.6 U^c	4.2 U^c	4.4 U^c	2900 U	3200 U	2600 U	2500 U	2800 U*1	4 U^c
Benzene	500	500	500	1.4 U	1.4 U	1.5 U	1.3 U	1.7 U	1.5 U	1.6 U	25000	16000	950 U	900 U	22000	1.5 U
Carbon disulfide	150,000	620,000	620,000	3.9 U	3.9 U	4.3 U	3.8 U	4.7 U	4.3 U	4.5 U	3000 U	3300 U	2700 U	2600 U	3700	4.1 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.3 U	2.3 U	2.6 U	2.3 U	2.8 U	2.6 U	2.7 U	1800 U	2000 U	1600 U	1500 U	1700 U	2.5 U
Ethylbenzene	70,000	70,000	70,000	1.8 U	1.8 U	2 U	1.8 U	2.2 U	2 U	2.1 U	1500 J	1500 U	1200 U	1200 U	2500 J	1.9 U
Methylcyclohexane	NE	NE	NE	2.4 U	2.3 U	2.6 U	2.3 U	2.8 U	2.6 U	2.7 U	1800 U	2000 U	1600 U	1500 U	1700 U	2.5 U
Styrene	24,000	24,000	24,000	1.5 U	1.5 U	1.6 U	1.4 U	1.8 U	1.6 U	1.7 U	11000	6800	1000 U	960 U	31000	1.5 U
Toluene	100,000	100,000	100,000	1.4 U	1.4 U	1.6 U	1.4 U	1.7 U	1.6 U	1.6 U	25000	18000	980 J	920 U	29000	1.5 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	7.1 U	7 U	7.8 U	6.9 U	8.5 U	7.8 U	8.1 U	48000	33000	25000	4600 U	77000	7.4 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																
1,1'-Biphenyl	370	1,500	1,500	210 U	180	100 FL	55 U	580 UFH	13 U	13 U	92000 J	72000 J	29000	2000 U	89000 U	550 UFH
2,4-Dimethylphenol	69,000	190,000	190,000	190 U	46 U	26 UFL	50 U	530 UFL	12 U	12 U	55000 U	58000 U	5200 U	1900 U	82000 U	500 UFL
2-Methylnaphthalene	25,000	100,000	100,000	220	79	330	62	2000 FH	11	15	450000	350000	260000	5400	370000	560 FH
2-Methylphenol	170,000	490,000	490,000	160 U	39 U	22 UFL	43 U	460 U	10 U	11 U	47000 U	50000 U	4400 U	1600 U	70000 U	430 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	200 U	48 U	27 UFL	53 U	560 UFL	12 U	13 U	58000 U	61000 U	5400 U	2000 U	86000 U	520 U
4-Chloroaniline	420	1,800	1,800	150 U	36 U	20 UFL	39 U	420 UFL	9.3 U	9.6 U	43000 U	46000 U	4000 U	1500 U	64000 U	390 UFL
Acenaphthene	2,600,000	4,700,000	4,700,000	96 J	120	120 FL	22 J	290 J	2 U	2.1 U	46000	36000	14000	840 J	33000 J	97 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	1800	510	110 FL	210	3800 4	3.9 J	8.4	750000	520000	60000	5900	680000	1400 FH
Acetophenone	350,000	970,000	970,000	200 U	48 U	27 UFL	53 U	560 UFL	13 U	13 U	58000 U	61000 U	5400 U	2000 U	86000 U	530 U
Anthracene	350,000	350,000	350,000	990	560	230 FL	380	7800 4	6.6 J	6.9 J	850000	450000	130000	8300	420000	1100 FH
Benzaldehyde	NE	NE	NE	71 U	17 U	9.6 U	19 U	200 UFL	4.4 U	4.5 U	20000 U	22000 U	1900 U	690 U	30000 U	190 U
Benzo[a]anthracene	6,100	130,000	340,000	3900	760	370	630	14000 4	28	9.7	680000	490000	170000	11000	370000	6200 4
Benzo[a]pyrene	4,200	46,000	46,000	4700	440	220 FL	600	11000 4	3.2 J	7.2 J	450000	310000	92000	6600	260000	7100 4
Benzo[b]fluoranthene	3,500	76,000	170,000	8400	510	480	630	14000 4	24	7.9	530000	400000	130000	8300	330000	10000 4
Benzo[g,h,i]perylene	180,000	180,000	180,000	6200	190	310	390	8900 4	4.2 J	6.6 J	260000	190000	48000	4300	180000	7600 4
Benzo[k]fluoranthene	3,500	76,000	610,000	2700	210	160 FL	240	4300 4	6.3 J	3.3 J	200000	130000	42000	3600	88000	2700 FH
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	610 U	140 U	83 UFL	160 U	1700 U	38 U	39 U	170000 U	180000 U	16000 U	6000 U	260000 U^c	1600 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	390 U^c	93 U^c	53 UFL	100 U^c	1100 U	24 U	25 U	110000 U	120000 U	11000 U	3800 U	170000 U^c	1000 U
Carbazole	21,000	89,000	89,000	340	95	100 FL	19 J	3700 4	15	5.3 J	630000	360000	76000	3600	190000	430 FH
Chrysene	35,000	230,000	230,000	5000	600	550	610	18000 4	63	9.8	700000	480000	140000	11000	370000	6600 4
Dibenz(a,h)anthracene	1,000	22,000	270,000	2000	86	120 FL	100	2400 FL	4.6 U	4.7 U	90000	66000	22000	1600	64000	2200 FH
Dibenzofuran	90,000	250,000	250,000	280 J	740	380 FL	150	2400 FL	13 U	14 U	560000	400000	110000	5300 J	290000	550 UFH
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	250 U	59 U	34 UFL	66 U	700 UFL	16 U	16 U	72000 U	76000 U	6700 U	2500 U	110000 U	650 UFH
Fluoranthene	3,200,000	3,200,000	3,200,000	4000	1600	910	1500	37000 4	79	26	2E+06	2E+06	410000	29000	860000	7100 4
Fluorene	2,800,000	3,800,000	3,800,000	180	930	120 FL	190	4200 4	2.4 J	11	970000	670000	120000	9100	450000	160 JFH
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	5600	200	260	360	7900 4	3.5 J	5.4 J	250000	180000	53000	4000	180000	6800 4
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	170 U	40 U	23 UFL	44 U	640 J	21 J	11 U	48000 U	51000 U	4500 U	1600 U	72000 U	440 U
Naphthalene	13,000	25,000	25,000	1100	220	640 FL	230	9100 4	64	87	2E+06	2E+06	410000	8700	3E+06	1300 FH
Phenanthrene	10,000,000	10,000,000	10,000,000	1600	1900	890	1400	30000 4	43	32	3E+06	2E+06	440000	31000	2E+06	2100 FH
Phenol	200,000	200,000	200,000	170 U	41 U	23 UFL	46 U	1100 JFH	26 J	11 U	50000 U	53000 U	4700 U	1700 U	74000 U	450 UFH
Pyrene	2,200,000	2,200,000	2,200,000	3400	1100	540 FL	1400	22000 4	72	16	1E+06	800000	230000	16000	690000	7700 4

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		33-SB02-1	33-SB02-10	37-SB01-1	37-SB01-10.5	38-SB01-1	39-SB01-1	39-SB01-10.5	43-SB01-1	43-SB01-1D	43-SB01-6	43-SB01-12	44-SS01	44-SB01-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/14/2022	10/14/2022	10/14/2022	10/14/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/3/2022	10/12/2022
Depth (ft bgs)				1.0	10.0	1.0	10.5	1.0	1.0	10.5	1.0	1.0	6.0	12.0	1.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	0.21 UFL	---	---	---	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	0.2 UFL	---	---	---	---	---	---	---	---
Aldrin	460	1,900	1,900	---	---	---	---	0.31 UFL	---	---	---	---	---	---	---	---
alpha-BHC	46	200	200	---	---	---	---	0.25 UFL	---	---	---	---	---	---	---	---
beta-BHC	210	880	880	---	---	---	---	0.27 UFL	---	---	---	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.25 UFL	---	---	---	---	---	---	---	---
delta-BHC	NE	NE	NE	---	---	---	---	0.32 UFL	---	---	---	---	---	---	---	---
Dieldrin	110	470	470	---	---	---	---	0.25 UFL	---	---	---	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	0.27 UFL	---	---	---	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	0.22 UFL	---	---	---	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	0.46 UFL	---	---	---	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	---	---	0.19 UFL	---	---	---	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	0.26 UFL	---	---	---	---	---	---	---	---
Heptachlor	680	680	680	---	---	---	---	0.31 UFL	---	---	---	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	0.39 UFL	---	---	---	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.23 UFL	---	---	---	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																
PCB-1248	9,300	46,000	67,000	4.6 U	4.1 U	4.7 U	4.4 U	4.8 U	4.3 U	4.4 U*3	4.9 U	5.2 U	4.7 U	4.5 U	4.9 U	4.5 U
PCB-1254	4,400	64,000	380,000	5.7 U	5.1 U	5.9 U	5.5 U	6 U	5.4 U	5.5 U	6.1 U	6.5 U	5.9 U	5.6 U	6.1 U	5.6 U
PCB-1260	9,300	46,000	630,000	12 J	4.8 U	5.6 U	5.2 U	5.7 U	5.1 U	5.2 U	5.8 U	6.2 U	5.6 U	5.3 U	5.8 U	5.3 U
Dioxins (ng/kg)																
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	130 BFL	---	---	---	---	---	---	---	45 B
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	12 B	---	---	---	---	---	---	---	17 B
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	1.5 JB	---	---	---	---	---	---	---	1.8 JB
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	2.1 JI	---	---	---	---	---	---	---	0.97 JB
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	6.8	---	---	---	---	---	---	---	3.5 JB
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	6.8 B	---	---	---	---	---	---	---	2.5 JB
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	3.7 JB	---	---	---	---	---	---	---	2.4 JB
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	4.2 J	---	---	---	---	---	---	---	1.6 JB
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	0.98 JB	---	---	---	---	---	---	---	0.68 JB
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	2.3 JI	---	---	---	---	---	---	---	2.3 JIB
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	11 I	---	---	---	---	---	---	---	2.7 JB
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	2 JB	---	---	---	---	---	---	---	2.3 JB
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	6.1 B	---	---	---	---	---	---	---	4 JB
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	0.2 JI	---	---	---	---	---	---	---	0.33 JIB
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	15 FL	---	---	---	---	---	---	---	3.2 IBFHF
OCDD	NE	NE	NE	---	---	---	---	1200 B4	---	---	---	---	---	---	---	510 BFL
OCDF	NE	NE	NE	---	---	---	---	32 B	---	---	---	---	---	---	---	59 B

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		33-SB02-1	33-SB02-10	37-SB01-1	37-SB01-10.5	38-SB01-1	39-SB01-1	39-SB01-10.5	43-SB01-1	43-SB01-1D	43-SB01-6	43-SB01-12	44-SS01	44-SB01-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/14/2022	10/14/2022	10/14/2022	10/14/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/3/2022	10/12/2022
Depth (ft bgs)				1.0	10.0	1.0	10.5	1.0	1.0	10.5	1.0	1.0	6.0	12.0	1.0	1.0
Metals (mg/kg)																
Aluminum	190,000	190,000	190,000	2400	20000	900	25000	7900 4	11000	7200	2300	2500	4400	21000	3500	2600 4
Antimony	27	27	27	0.33 U	1.2 U	0.34 U	1.4 U	3.8 FL	0.29 U	0.27 U	1.3	0.79 J	0.26 U	1.4 U	0.58 J	0.29 UFL
Arsenic	12	29	29	0.83 J	3 J	2.2	2.9 U	7.6	2	1.3	7.4	8.9	3.3	7.6	8.7	2 FL
Barium	8,200	8,200	8,200	44	500	24	300	170 FL	99	48	75	49	48	120	180	34 F2FL
Beryllium	320	320	320	0.33 J	4.2	0.2 J	3.7	1.5	1	0.99	0.5	0.57	0.64	2.7	0.31 J	0.44 FL
Cadmium	38	38	38	0.08 U	0.3 U	0.081 U	0.34 U	0.58 J	0.07 U	0.065 U	0.87	2.2	0.33 J	0.52	4.3	0.099 JFL
Calcium	NE	NE	NE	9700	69000	1500	88000	44000 4F2	71000	32000	8600	6700	17000	110000	18000	12000 4
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	1.1	12	4.6	3.7	29 FL	4.4	1.2	28	24	4	6.8	44	3.4 FL
Cobalt	45	130	130	0.76 U	0.57 U	1.5 J	0.66 U	6.6	1.4 J	0.62 U	3.4 J	4 J	0.66 J	3.5 J	4.3	0.67 UFL
Copper	7,200	43,000	43,000	3.9	6.1 U	18	7 U	76 F2FL	5.4	1.4 J	62	52	7.4	17	130	6.4 FL
Iron	150,000	190,000	190,000	1500	3900	5900	1100	24000 F24	4200	6100	36000 B	36000 B	13000	77000 B	40000	7200 4
Lead	450	450	450	6	0.71 U	5.8	0.81 U	120 F2FL	1.2	0.77 U	180	220	12	96	390	53 F2FL
Magnesium	NE	NE	NE	1700	16000	250 J	16000	14000 F24	8100	4400	1400	1500	2800	14000	2100	1500 FL
Manganese	2,000	2,000	2,000	240	2800	130	1200	630 4	840	340	330	350	430	1800	380	320 F24
Mercury	10	10	10	2.6	0.017 U	0.024 U	0.024 U	0.59 FLF2	0.02 U	0.019 U	0.55	0.54	0.23	0.02 J	1.6	0.023 UFHF2
Nickel	650	650	650	1.2 J	0.46 J	7.3	0.61 J	33 FLB	4.7	0.83 J	20	27	3 J	8.9 J	34	2.5 JFL
Potassium	NE	NE	NE	260 J	2200	150 J	2000 J	780	750	320 J	280 J	350 J	350 J	1100	620	260 JFL
Selenium	26	26	26	0.5 U	2.7 J	0.7 J	2.1 U	1.6	1.3	0.84 J	1.5	3.7	1.4	3.6	3.2	0.53 JFL
Silver	84	84	84	0.11 U	0.42 U	0.12 U	0.48 U	0.13 U	0.099 U	0.092 U	0.19 J	0.13 U	0.088 U	0.097 U	0.1 U	0.099 UFL
Sodium	NE	NE	NE	56 U	400 J	57 U	370 J	270 J	240 J	170 J	110 J	97 J	74 J	360 J	140 J	97 JFL
Thallium	2.2	14	14	0.31 U	0.23 U	0.31 U	0.26 U	0.35 UFL	0.27 U	0.25 U	0.98 J	2.5	0.24 U	0.27 U	3.9	0.27 UFL
Vanadium	15	220	680	0.95 J	37	2 J	4.9 J	11	5.5	2.6 J	5.7	5.8 J	4.5	14 J	5.7	2.4 JFL
Zinc	12,000	12,000	12,000	14	4.8 U	42	5.5 U	130 F24	11	1.3 J	110	170	52	370	420	45 FL

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		44-SB01-9.5	44-SB02-11	44-SB02-1	45-SB01-1	46-SB01-1	46-SB01-9	46-SB01-9.5	53-SB01-1	53-SB01-7	57-SB01-1	57-SB01-13.5	77-SB01-1	77-SB01-5	80-SB01-1
Date		Surface Soil	Subsurface Soil	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/4/2022	10/4/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	9.5	11.0	1.0	1.0	1.0	9.0	9.5	1.0	7.0	1.0	13.5	1.0	5.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.4 U^c	3.9 U^c	5 U^c	4.5 U^c	4.6 U^c	7 J^c	3.8 U^c	3.9 UB^c	3.8 U^c	4.1 U^c	3.6 UF2B^	4.7 U^c	4.6 U^c	5 U
Benzene	500	500	500	1.6 U	1.4 U	1.8 U	1.6 U	1.7 U	1.6 U	1.4 U	1.4 U	1.4 U	1.5 U	1.3 UFLF2	1.7 U	1.7 U	1.8 U
Carbon disulfide	150,000	620,000	620,000	4.5 U	4 U	5.1 U	4.6 U	4.7 U	4.5 U	3.9 U	4 U	3.9 U^c*1	4.2 U^c*1	3.7 UF2	4.9 U	4.7 U	5.1 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.7 U	2.4 U	3.1 U	2.8 U	2.8 U	2.7 U	2.4 U	2.4 U	2.3 U*1	2.5 U*1	2.2 UF2	2.9 U	2.8 U	3.1 U
Ethylbenzene	70,000	70,000	70,000	2.1 U	1.8 U	2.4 U	2.1 U	2.2 U	2.1 U	1.8 U	1.9 U	1.8 U	1.9 U	1.7 UFLF2	2.2 U	2.2 U	2.4 U
Methylcyclohexane	NE	NE	NE	2.7 U	2.4 U	3.1 U	2.8 U	2.8 U	2.7 U	2.4 U	2.4 U	2.4 U*-*1	2.5 U*-*1	2.3 UF2	2.9 U	2.8 U	3.1 U
Styrene	24,000	24,000	24,000	1.7 U	1.5 U	1.9 U	1.7 U	1.8 U	1.7 U	1.5 U	1.5 U	1.5 U	1.6 U	1.4 UFLF2	1.8 U	1.8 U	1.9 U
Toluene	100,000	100,000	100,000	1.6 U	1.4 U	1.8 U	1.7 U	1.7 U	1.6 U	1.4 U	1.4 U	1.4 U	1.5 U	1.3 UFLF2	1.8 U	1.7 U	1.8 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.1 U	7.1 U	9.2 U	8.4 U	8.5 U	8 U	7.1 U	7.2 U	7 U	7.5 U	6.7 UFLF2	8.8 U	8.5 U	9.2 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	14 U	13 U	6200 U	15 U	160 U	420 U	15 J	66 U	13 U	2700 U	27 J	30 J	14 U	370 U
2,4-Dimethylphenol	69,000	190,000	190,000	13 U	12 U	5700 U	14 U	150 U	390 U	13 U	61 U	12 U	2500 U	23 U	14 U	13 U	340 U
2-Methylnaphthalene	25,000	100,000	100,000	5 J	3.6 J	3900	18	21 U	76 J	61	330	11	1500	110	140	68	970
2-Methylphenol	170,000	490,000	490,000	11 U	10 U	4900 U	12 U	120 U	330 U	11 U	52 U	11 U	2100 U	20 U	12 U	11 U	290 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	13 U	13 U	6000 U	14 U	150 U	400 U	13 U	63 U	31 J	2600 U	24 U	14 U	14 U	350 U
4-Chloroaniline	420	1,800	1,800	9.9 U	9.5 U	4500 U	11 U	110 U	300 U	9.9 U	47 U	9.6 U	2000 U	18 U	11 U	10 U	270 U
Acenaphthene	2,600,000	4,700,000	4,700,000	2.2 U	2.1 U	2700 J	2.4 U	25 U	66 U	9.6	20 J	2.1 U	550 J	13 J	90	30	140 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	3.8 J	22	18000	26	33 J	170 J	100	86	1.6 U	13000	190 FH	70	36	1200
Acetophenone	350,000	970,000	970,000	13 U	13 U	6000 U	15 U	150 U	410 U	13 U	64 U	13 U	2600 U	25 U	25 J	14 U	360 U
Anthracene	350,000	350,000	350,000	3.4 J	27	55000	45 FH	23 U	99 J	130	190	6.2 J	8700	300 FH	150	67	1000
Benzaldehyde	NE	NE	NE	4.7 U	4.5 U	2100 U	5.1 UFL	54 U	140 U	4.7 U	22 U	4.6 U	920 U	8.7 UFL	23 J	4.9 U	130 U
Benzo[a]anthracene	6,100	130,000	340,000	24	95	98000	63	40 J	170 J	260	1000	5.6 J	35000	810 FH	370	220	3200
Benzo[a]pyrene	4,200	46,000	46,000	26	71	70000	46	38 U	140 J	180	710	6.1 J	40000	810 FH	390	190	3300
Benzo[b]fluoranthene	3,500	76,000	170,000	38	90	97000	59	66 J	220 J	240	940	5.7 J	47000	1000 FH	530	270	4500
Benzo[g,h,i]perylene	180,000	180,000	180,000	36	55	52000	42 FH	77 J	330	140	540	5 J	40000	740 FH	440	180	3100
Benzo[k]fluoranthene	3,500	76,000	610,000	19	36	34000	20	33 J	140 J	75	400	2.8 J	20000	420 FH	160	88	1500
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	40 U	38 U	18000 U	44 UFH	460 U	1200 U	40 U	190 U	39 U	7900 U	74 U	60 J^c	42 U^c	1100 U^c
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	26 U	25 U	12000 U	28 UFH	300 U	790 U	26 U	120 U	25 U	5100 U	48 U	28 U^c	27 U^c	690 U^c
Carbazole	21,000	89,000	89,000	1.8 U	9.5	20000	21	20 U	54 U	68	51	1.7 U	2100	150	50	26	280
Chrysene	35,000	230,000	230,000	25	94	120000	64	54 J	210 J	260	1100	5.1 J	33000	760 FH	400	210	3400
Dibenz(a,h)anthracene	1,000	22,000	270,000	8.9	23	18000	12 FH	56 U	150 U	54	200	4.7 U	9000	180 FH	130	57	870
Dibenzofuran	90,000	250,000	250,000	14 U	13 U	9400 J	18 J	160 U	430 U	64	100 J	15 J	2700 U	110	80	32 J	480 J
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	78	45	7400 U	79 FH	190 U	500 U	56	79 U	41	3300 U	31 U	18 U	17 U	440 U
Fluoranthene	3,200,000	3,200,000	3,200,000	17	160	230000	130	50 J	160 J	470	1600	9.7	71000	1700 FH	570	250	4800
Fluorene	2,800,000	3,800,000	3,800,000	1.5 U	10	19000	25	17 U	45 U	88	33 J	1.4 J	2100	120	64	26	260
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	35	54	50000	33 FH	52 J	180 J	150	530	5.2 J	36000	660 FH	400	170	2700
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	11 U	11 U	5000 U	12 U	130 U	340 U	11 J	53 U	11 U	2200 U	20 U	17 J	16 J	300 U
Naphthalene	13,000	25,000	25,000	8.9	22	16000	47	33 J	340	240	220	28	2700	480	250	66	2700
Phenanthrene	10,000,000	10,000,000	10,000,000	8.9	65	130000	160	23 U	140 J	480	410	35	20000	930 FH	530	230	2400
Phenol	200,000	200,000	200,000	11 U	11 U	5100 U	13 U	130 U	350 U	11 U	55 U	11 U	2300 U	21 U	16 J	12 U	310 U
Pyrene	2,200,000	2,200,000	2,200,000	19	140	120000	120 FH	43 J	170 J	410	950	8.6	54000	1600 FH	580	300	4300

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ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		44-SB01-9.5	44-SB02-11	44-SB02-1	45-SB01-1	46-SB01-1	46-SB01-9	46-SB01-9.5	53-SB01-1	53-SB01-7	57-SB01-1	57-SB01-13.5	77-SB01-1	77-SB01-5	80-SB01-1
Date		Surface Soil	Subsurface Soil	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/4/2022	10/4/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	9.5	11.0	1.0	1.0	1.0	9.0	9.5	1.0	7.0	1.0	13.5	1.0	5.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	---	---	---	---	0.095 U	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	---	---	---	---	0.093 U	---	---	---	---
Aldrin	460	1,900	1,900	---	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---
alpha-BHC	46	200	200	---	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---
beta-BHC	210	880	880	---	---	---	---	---	---	---	---	---	0.12 U	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---
delta-BHC	NE	NE	NE	---	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---
Dieldrin	110	470	470	---	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	---	---	---	---	0.12 U	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	---	---	---	---	0.1 U	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	---	---	---	---	0.21 U	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	---	---	---	---	---	---	---	0.085 U	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	---	---	---	---	0.12 U	---	---	---	---
Heptachlor	680	680	680	---	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	---	---	---	---	0.18 U	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	4.6 U	4.3 U	5.2 U	4.9 U	5.3 U	4.6 U	4.6 U	4.4 U	4.4 U	4.4 U	4.2 U	4.9 U	4.6 U	4.9 U
PCB-1254	4,400	64,000	380,000	5.7 U	5.4 U	6.5 U	6.1 U	6.6 U	5.7 U	5.7 U	5.5 U	5.5 U	5.5 U	5.2 U	6.2 U	5.8 U	6.2 U
PCB-1260	9,300	46,000	630,000	5.4 U	5.1 U	23 p	5.8 U	6.2 U	5.4 U	5.4 U	5.2 U	5.3 U	5.2 U	4.9 U	5.8 U	5.5 U	31
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	120 B	---	74 B	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	29 B	---	19 B	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	2.3 JB	---	3.2 JB	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	2 JB	---	1.5 JB	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	6.2 B	---	11 B	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	7.2 B	---	4.7 JB	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	3.8 JB	---	6.1 B	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	5.8 B	---	2.8 JIB	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	0.82 JB	---	1.7 JB	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	5.9 IB	---	4.2 JIB	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	3.6 JB	---	4.7 JB	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	4.3 JB	---	4.2 JB	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	5.8 B	---	6.9 B	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	0.86 JB	---	0.3 JIB	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	3.8 B	---	5.3 B	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	640 B	---	560 B	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	50 B	---	34 B	---	---	---	---

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		44-SB01-9.5	44-SB02-11	44-SB02-1	45-SB01-1	46-SB01-1	46-SB01-9	46-SB01-9.5	53-SB01-1	53-SB01-7	57-SB01-1	57-SB01-13.5	77-SB01-1	77-SB01-5	80-SB01-1
Date		Surface Soil	Subsurface Soil	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/12/2022	10/4/2022	10/4/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	9.5	11.0	1.0	1.0	1.0	9.0	9.5	1.0	7.0	1.0	13.5	1.0	5.0	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	3700	11000 4F2	1100	13000 4F2	15000	38000	29000	11000	14000	1600	9600 4	12000	14000	4000
Antimony	27	27	27	1.2	0.24 UFL	1.1	3.7 UFLF2	3.1 U	1.7 U	1.5 U	0.23 U	0.23 U	0.41 J	0.27 UF2FL	0.24 U	0.42 J	8.4 J
Arsenic	12	29	29	8.1	2.1 F2FL	3.5	29	35	11	20	1.8	1.5	2.5	1.3 FL	5.1	11	61
Barium	8,200	8,200	8,200	47	210 F2FL	21	200 FL	240	350	300	69	57	27	110 FL	150	240	91
Beryllium	320	320	320	0.49	1.6 F2FL	0.16 J	2.1	2.9	5.7	5	1.5	2.2	0.33 J	1.3 FL	1.8	1.6	0.7
Cadmium	38	38	38	1.7	0.059 UF2FL	0.78	2.3	2.7	1.4 J	0.7 J	0.13 J	0.056 U	0.18 J	0.066 UFL	0.3 J	0.41 J	1.1
Calcium	NE	NE	NE	15000	54000 4F2	3900	42000 4F2	17000	140000	120000	43000	61000	5300	37000 4	65000	71000	10000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	7	2.4 FL	14	55 FL	63	18	30	1.5	1.4	9.7	2.9 FL	7.6	18	57
Cobalt	45	130	130	2.7 J	0.65 JF2FL	2 J	14	11	4.5 J	7.2	0.54 U	0.53 U	1.4 J	0.63 UFL	3.3 J	4.4	20
Copper	7,200	43,000	43,000	88	6.7 F2FL	41	78 FL	88	54	32	6.9	2.6	12	3.7 FL	28	210	500
Iron	150,000	190,000	190,000	36000	8400 F24	23000	190000 B4	220000 B	50000 B	150000 B	4700	4900	9800	3200 F24	32000 B	42000 B	380000 B
Lead	450	450	450	170	1.6 F2FL	44	270 4	260	110	57	29	0.66 U	20	4.4 FL	22	43	79
Magnesium	NE	NE	NE	2200	7400 F2FLF	1000	12000 FH	6700	25000	22000	6600	9700	1100	6600 FL	13000	10000	2700
Manganese	2,000	2,000	2,000	670	990 4F2	140	4100 4	3400	3200	2700	990	480	240	660 4	2300	2200	830 B
Mercury	10	10	10	0.064	0.021 U	0.6	0.042 F2FL	0.17	0.31	0.021 J	0.27	0.022 U	0.5	0.021 UFL	0.36	0.02 J	0.18
Nickel	650	650	650	8.7	9.2 F2FL	10	47 J	43	15	20	1.6 J	1 J	10	2 JFL	9.8	14	180
Potassium	NE	NE	NE	690	1700 F2FL	170 J	930	490 J	1800 J	1200 J	520	360 J	120 J	890 FL	1600	1500	310 J
Selenium	26	26	26	0.5 U	1.1 F2FL	0.51 J	5.7 UFL	4.7 U	2.6 U	2.2 U	1.1	1.4	0.78 J	0.73 JFL	1.8 U	2 U	2.5
Silver	84	84	84	0.27 J	0.083 UF2FL	0.11 U	1.3 U	1.1 U	0.6 U	0.5 U	0.079 U	0.079 U	0.1 U	0.093 UFL	0.42 U	0.46 U	0.31 J
Sodium	NE	NE	NE	210 J	270 JF2FL	53 U	280 J	84 J	560 J	460 J	250 J	270 J	54 J	210 JFL	470	340 J	100 J
Thallium	2.2	14	14	0.31 U	0.23 UF2FL	0.44 J	3.5 U	2.9 U	0.33 U	1.4 U	0.22 U	0.22 U	0.28 U	0.25 UFL	1.1 U	1.3 U	1.3 J
Vanadium	15	220	680	11	4.5 FL	4.1 J	68 FL	75	19 J	36	2.4 J	2.8 J	2.7 J	2.1 JFL	9.5	12	8.6 U
Zinc	12,000	12,000	12,000	770	25 F2FL	310	2200 4	2400	380	530	23	3.1	36	8.7 FL	38	130	540

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		80-SB01-7	80-SB02-1	80-SB02-5.5	80-SB03-1	80-SB03-10.5	80-SB03-6	81-SS-01	81-SB01-1	81-SB01-6	81-SB02-1	81-SB02-1D	81-SB02-6.5	85-SS-01	85-SS-02
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/14/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/15/2022	9/15/2022
Depth (ft bgs)		(0-2')	(2-15')	7.0	1.0	5.5	1.0	10.5	6.0	1.0	1.0	6.0	1.0	1.0	6.5	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.5 U	4.4 U	4.7 U	4.9 U	18 J	6.9 U^c	4.2 U	4.6 U	4.7 U	4.6 U^c*3	4.5 U^c	5.5 U	4.6 U^c	4 U^c
Benzene	500	500	500	1.6 U	1.6 U	1.7 U	1.8 U	2.4 U	2.5 U	1.5 U	1.7 U	1.7 U	1.7 U*3	1.6 U	2 U	1.7 U	1.4 U
Carbon disulfide	150,000	620,000	620,000	4.6 U	4.5 U	4.9 U	5.1 U	6.7 U	7.1 U	4.3 U	4.7 U	4.8 U	4.8 U*3	4.6 U	5.6 U	4.7 U	4.1 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.7 U	2.7 U	2.9 U	3 U	4 U	4.2 U	2.6 U^c	2.8 U	2.9 U	2.8 U*3	2.8 U	3.3 U	2.8 U	2.5 U
Ethylbenzene	70,000	70,000	70,000	2.1 U	2.1 U	2.2 U	2.3 U	3.1 U	3.3 U	2 U	2.2 U	2.2 U	2.2 U*3	2.1 U	2.6 U	2.2 U	1.9 U
Methylcyclohexane	NE	NE	NE	2.8 U	2.7 U	2.9 U	3 U	4 U	4.3 U	2.6 U	2.8 U	2.9 U	2.9 U*3	2.8 U	3.4 U	2.9 U	2.5 U
Styrene	24,000	24,000	24,000	1.7 U	1.7 U	1.8 U	1.9 U	2.5 U	2.6 U	1.6 U	1.8 U	1.8 U	1.8 U*3	1.7 U	2.1 U	1.8 U	1.5 U
Toluene	100,000	100,000	100,000	1.6 U	1.6 U	1.7 U	1.8 U	2.4 U	2.5 U	1.6 U	1.7 U	1.7 U	1.7 U*3	1.7 U	2 U	1.7 U	1.5 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.2 U	8.1 U	8.7 U	9.1 U	12 U	13 U	7.8 U	8.5 U	8.6 U	8.6 U*3	8.3 U	10 U	8.5 U	7.4 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	14 U	550 U	15 U	450 U	100 U	22 U	130	2800 U	15 U	350 U	140 J	17 U	760	310 J
2,4-Dimethylphenol	69,000	190,000	190,000	13 U	510 U	14 U	410 U	93 U	20 U	25 U	2600 U	13 U	320 U	130 U	16 U	66 U	120 U
2-Methylnaphthalene	25,000	100,000	100,000	30	490	130	440	13 U	62	600	540 J	32	740	580	27	3400	1400
2-Methylphenol	170,000	490,000	490,000	11 U	430 U	12 U	350 U	80 U	17 U	22 U	2200 U	11 U	270 U	110 U	13 U	56 U	100 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	13 U	530 U	15 U	430 U	98 U	21 U	26 U	2700 U	14 U	330 U	140 U	16 U	69 U	120 U
4-Chloroaniline	420	1,800	1,800	9.9 U	400 U	11 U	320 U	73 U	16 U	20 U	2000 U	10 U	250 U	100 U	12 U	51 U	93 U
Acenaphthene	2,600,000	4,700,000	4,700,000	6 J	87 U	4.2 J	71 U	16 U	11 J	77	440 U	3.5 J	110 J	130	2.7 U	460	340
Acenaphthylene	2,400,000	6,600,000	6,600,000	9.9	510	7.5 J	410	12 U	15	720	4600	8.5	1100	500	2 U	1600	750
Acetophenone	350,000	970,000	970,000	13 U	530 U	15 U	440 U	98 U	21 U	27 U	2700 U	14 U	340 U	140 U	16 U	69 U	130 U
Anthracene	350,000	350,000	350,000	26	360	8.3 J	310	36 J	32	1100	6600	6.7 J	910	670	2.4 U	2500	1500
Benzaldehyde	NE	NE	NE	4.7 U	190 U	5.2 U	150 U	35 U	7.4 U	40 J	950 U	5 U	120 U	48 U	5.8 U	24 U	44 U
Benzo[a]anthracene	6,100	130,000	340,000	65	610	41	720	120	77	2700	45000	17	3100	2100	4.8 J	5200	5200
Benzo[a]pyrene	4,200	46,000	46,000	54	590	34	610	77	66	1800	41000	11	2500	1900	4 U	3500	4100
Benzo[b]fluoranthene	3,500	76,000	170,000	73	780	48	900	50 J	90	2600	63000	16	4100	3100	4.4 J	5400	6000
Benzo[g,h,i]perylene	180,000	180,000	180,000	44	1100	30	730	150	66	1500	24000	9.6	2600	2100	2.6 J	3500	3900
Benzo[k]fluoranthene	3,500	76,000	610,000	21	290 J	13	330	17 U	26	820	22000	4.4 J	1400	990	2.8 U	1700	1500
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	40 U^c	1600 U^c	45 U^c	1300 U^c	300 U^c	63 U^c	160 J^c	8100 U^c	42 U^c	1000 U^c	410 U^c	50 U^c	210 U	380 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	26 U^c	1000 U^c	29 U	850 U^c	190 U	41 U^c	52 U	5200 U^c	27 U^c	650 U^c	270 U^c	32 U	130 U	240 U
Carbazole	21,000	89,000	89,000	5.7 J	86 J	2 U	88 J	13 U	12	230	890 J	2.9 J	320	290	2.2 U	580	580
Chrysene	35,000	230,000	230,000	58	610	43	730	220	80	3400 E	39000	20	3700	2500	6 J	4800	5200
Dibenz(a,h)anthracene	1,000	22,000	270,000	13	190 U	9.2	200 J	36 U	22	560	7100	5.1 U	960	670	6 U	1200	1200
Dibenzofuran	90,000	250,000	250,000	14 U	560 U	29 J	450 U	100 U	22 J	460	2800 U	15 U	510 J	420	17 U	2400	980
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	38	660 U	18 U	540 U	120 U	26 U	75	3300 U	23 J	420 U	170 U	20 U	270	240 J
Fluoranthene	3,200,000	3,200,000	3,200,000	130	910	59	1100	52 J	130	5500 E	76000	30	3500	3000	5.3 J	7900 E	6600
Fluorene	2,800,000	3,800,000	3,800,000	11	85 J	6.7 J	76 J	11 U	14	370	830 J	6.4 J	270	250	1.8 U	2200	790
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	41	600	25	620	35 J	56	1400	24000	7.6 J	2400	1900	4.6 U	3300	3600
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	11 U	440 U	12 U	360 U	82 U	17 U	23 J	2200 U	12 U	280 U	110 U	14 U	83 J	100 U
Naphthalene	13,000	25,000	25,000	18	330	73	380	11 U	46	3800 E	990 J	51	2500	2500	14	13000 E	4100
Phenanthrene	10,000,000	10,000,000	10,000,000	120	590	72	810	99	150	2900	14000	40	2600	2500	18	9500 E	5700
Phenol	200,000	200,000	200,000	11 U	460 U	13 U	370 U	84 U	18 U	23 U	2300 U	12 U	290 U	120 U	14 U	59 U	110 U
Pyrene	2,200,000	2,200,000	2,200,000	120	970	54	1000	230	130	3000 E	88000	27	3300	2900	4.9 J	7200	7400

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ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		80-SB01-7	80-SB02-1	80-SB02-5.5	80-SB03-1	80-SB03-10.5	80-SB03-6	81-SS-01	81-SB01-1	81-SB01-6	81-SB02-1	81-SB02-1D	81-SB02-6.5	85-SS-01	85-SS-02
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/14/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/15/2022	9/15/2022
Depth (ft bgs)		(0-2')	(2-15')	7.0	1.0	5.5	1.0	10.5	6.0	1.0	1.0	6.0	1.0	1.0	6.5	1.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aldrin	460	1,900	1,900	---	---	---	---	---	---	---	---	---	---	---	---	---	---
alpha-BHC	46	200	200	---	---	---	---	---	---	---	---	---	---	---	---	---	---
beta-BHC	210	880	880	---	---	---	---	---	---	---	---	---	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
delta-BHC	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dieldrin	110	470	470	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	---	---	---	---	---	---	---	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Heptachlor	680	680	680	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	4.5 U	4.4 U	5.1 U	5 U	6.7 U	7.1 U	4.5 U	4.6 U	4.9 U	4.6 U	4.6 U	5.7 U	4.7 U	42 U
PCB-1254	4,400	64,000	380,000	5.7 U	5.5 U	6.4 U	6.2 U	8.4 U	8.9 U	5.6 U	5.7 U	6.1 U	5.8 U	5.8 U	7.1 U	5.9 U	53 U
PCB-1260	9,300	46,000	630,000	5.4 U	29	6 U	59	7.9 U	8.4 U	5.3 U	5.4 U	5.8 U	48	75	6.7 U	5.6 U	7800
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		80-SB01-7	80-SB02-1	80-SB02-5.5	80-SB03-1	80-SB03-10.5	80-SB03-6	81-SS-01	81-SB01-1	81-SB01-6	81-SB02-1	81-SB02-1D	81-SB02-6.5	85-SS-01	85-SS-02
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/14/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/5/2022	9/15/2022	9/15/2022
Depth (ft bgs)		(0-2')	(2-15')	7.0	1.0	5.5	1.0	10.5	6.0	1.0	1.0	6.0	1.0	1.0	1.0	6.5	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	48000	20000	8800	4800	18000	7800	640	20000	33000	5900	7400	15000	3200	6300
Antimony	27	27	27	1.6 U	0.35 J	0.49 J	3 U	0.4 U	1.2 J	0.27 U	1.5 U	1.4 U	1.8 J	1.5 U	2.2 J	0.32 U	1.4 U
Arsenic	12	29	29	5.3	9.7	14	46	14	17	1.9	19	14	25	19	46	7.4	12
Barium	8,200	8,200	8,200	300	270	110	290	130	150	19	350	170	350	400	440	76	140
Beryllium	320	320	320	7.9	3.6	1.4	0.51	0.83	0.5 J	0.29 J	4.2	4.1	1.2	1.5	2.8	0.98	1.3
Cadmium	38	38	38	0.39 U	1	1.1	0.072 U	0.26 J	0.21 J	0.065 U	2.7	0.81 J	2.1	3.4	3.8	0.27 J	1.8
Calcium	NE	NE	NE	220000	92000	37000	780	2200	5500	2300	82000	100000	10000	13000	27000	13000	29000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	4.4	12	11	100	21	130	4.1	22	14	51	75	20	8.6	15
Cobalt	45	130	130	1.9 J	4.3 J	5.8	3.9 J	17	3.8 J	1.3 J	6.4	6.7	14	6.8	8.7	4 J	4.7
Copper	7,200	43,000	43,000	8.5 J	31	190	61	35	240	8.8	90	33	79	78	56	27	150
Iron	150,000	190,000	190,000	19000	26000	40000	190000 B	32000 B	40000 B	3500	99000 B	89000 B	78000 B	89000 B	230000 B	36000	69000
Lead	450	450	450	16	80	92	210	35	150	9.2	140	15	1100	1500	550	39	220
Magnesium	NE	NE	NE	25000	12000	4300	870	4600	1600	800	13000	16000	3400	4000	5600	2100	5900
Manganese	2,000	2,000	2,000	1400	2400	660	460 B	420 B	150 B	47	3000 B	1400 B	3600 B	830 B	2100 B	630	1200
Mercury	10	10	10	0.02 U	0.023 U	0.18	0.31	0.088	0.55	0.093 B	0.035	0.058	0.25	0.12	0.07	0.18	1.4
Nickel	650	650	650	4.1 J	13	18	15 J	36	16	3.7	20	35	37	24	21	9	14 J
Potassium	NE	NE	NE	710 J	1800	780	1900	1600	740 J	76 U	1200 J	1700 J	390 J	1200	4000	310 J	590
Selenium	26	26	26	2.5 U	1.1	0.63 J	2.3	0.92 J	4.9	0.41 U^1+	3.7 J	3.9 J	2.7 J	1.7	1.4	1.6	1.3
Silver	84	84	84	0.55 U	0.11 U	0.11 U	0.24 J	0.14 U	0.18 U	0.093 U	0.51 U	0.5 U	0.61 U	0.61	3.3	0.11 U	0.36 J
Sodium	NE	NE	NE	590 J	610	290 J	120 J	160 J	240 J	46 U	470 J	590 J	310 J	400 J	1200	99 J	160 J
Thallium	2.2	14	14	1.3 J	0.41 J	0.3 U	1.5 J	0.37 U	0.49 U	0.25 U	1.4 U	0.27 U	1.7 U	0.38 J	1.8 J	0.3 U	0.45 J
Vanadium	15	220	680	8.9 J	15	14	130	24	40	3.3 J	23 J	32	30	26	56	10	14 J
Zinc	12,000	12,000	12,000	23	160	200	180	130	150	16	330	260	420	870	2700	91	500

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ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SS-03	85-SS-04	85-SB01-1	85-SB01-4	85-SB01-GWG-1	85-SB01-GWG-2	85-SB02-1	85-SB02-8	85-SB03-1	85-SB03-6.5	85-SB04-1	85-SB04-8	85-SB05-1
Date		Surface Soil	Subsurface Soil	9/15/2022	9/15/2022	10/3/2022	10/3/2022	10/4/2022	10/4/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/4/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	1.0	1.0	4.0	1.0	2.0	1.0	8.5	1.0	6.5	1.0	8.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																
Acetone	3,100,000	8,800,000	8,800,000	4.7 U^c	4.2 U^c	6.8 U^c	4.5 U^c	4.9 U^c	220 U	5.4 U^c	6.5 U^c	5.8 U	4.9 U	4.7 U	4.5 U^c	4.5 U
Benzene	500	500	500	1.7 U	1.5 U	2.4 U	1.6 U	7.1	71000	1.9 U	2.4 U	2.1 U	1.8 U	1.7 U	1.6 U	1.6 U
Carbon disulfide	150,000	620,000	620,000	4.8 U	4.3 U	6.9 U	4.7 U	5 U	230 U	5.5 U	6.7 U	6 U	5 U	4.9 U	4.6 U	4.6 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.9 U	2.6 U	4.1 U	2.8 U	3 U	140 J	3.3 U	4 U	3.6 U	3 U	2.9 U	2.7 U	2.8 U
Ethylbenzene	70,000	70,000	70,000	2.2 U	2 U	3.2 U	2.2 U	2.3 U	4500 J	2.5 U	3.1 U	2.8 U	2.3 U	2.2 U	2.1 U	2.1 U
Methylcyclohexane	NE	NE	NE	2.9 U	2.6 U	4.2 U	2.8 U	3 U	560	3.3 U	4 U	3.6 U	3 U	2.9 U	2.8 U	2.8 U
Styrene	24,000	24,000	24,000	1.8 U	1.6 U	2.6 U	1.7 U	1.9 U	86 U	2.1 U	2.5 U	2.2 U	1.9 U	1.8 U	1.7 U	1.7 U
Toluene	100,000	100,000	100,000	1.7 U	1.5 U	2.5 U	1.7 U	2.3 J	50000	2 U	2.4 U	2.1 U	1.8 U	1.7 U	1.7 U	1.7 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.7 U	7.7 U	13 U	8.4 U	9 U	33000	9.9 U	12 U	11 U	9 U	8.7 U	8.3 U	8.3 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																
1,1'-Biphenyl	370	1,500	1,500	730 J	270	560 U	28 U	31 U	320 U	320 J	310 U	610 J	15 J	340	42 U	32 J
2,4-Dimethylphenol	69,000	190,000	190,000	330 U	36 U	510 U	26 U	28 U	300 U	150 U	290 U	410 U	13 U	65 U	39 U	26 U
2-Methylnaphthalene	25,000	100,000	100,000	2600	1000	86 J	200	82	610	1700	160 J	2700	210	1800	45	160
2-Methylphenol	170,000	490,000	490,000	290 U	31 U	440 U	22 U	45 J	250 U	130 U	250 U	350 U	12 U	56 U	33 U	22 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	350 U	38 U	530 U	27 U	30 U	310 U	160 U	300 U	430 U	14 U	68 U	41 U	27 U
4-Chloroaniline	420	1,800	1,800	260 U	28 U	400 U	20 U	22 U	230 U	120 U	220 U	320 U	11 U	51 U	30 U	20 U
Acenaphthene	2,600,000	4,700,000	4,700,000	1700	140	87 U	11 J	18	660	190	49 U	340	26	190	6.7 U	27
Acenaphthylene	2,400,000	6,600,000	6,600,000	1300	670	250 J	35	270	970	610	88 J	1200	17	670	28	140
Acetophenone	350,000	970,000	970,000	350 U	38 U	540 U	27 U	30 U	310 U	160 U	300 U	430 U	14 J	69 U	41 U	27 U
Anthracene	350,000	350,000	350,000	5800	1100	320	42	250	3100	1000	120 J	2200	53	1200	33	230
Benzaldehyde	NE	NE	NE	120 U	13 U	230 J	13 J	10 U	110 U	55 U	110 U	150 U	5 U	24 U	14 U	9.5 U
Benzo[a]anthracene	6,100	130,000	340,000	14000	2700	660	140	1700	7400	2200	440	3900	230	2600	99	750
Benzo[a]pyrene	4,200	46,000	46,000	8600	1900	510	130	1600	6800	1700	340	2700	210	2100	96	590
Benzo[b]fluoranthene	3,500	76,000	170,000	13000	3500	590	160	2000	8500	3100	440	4500	250	3300	130	940
Benzo[g,h,i]perylene	180,000	180,000	180,000	7000	1900	470	150	1200	4400	1900	310	2400	190	1800	97	630
Benzo[k]fluoranthene	3,500	76,000	610,000	4200	930	200 J	62	580	2900	880	140 J	1100	87	840	40	300
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	1100 U	160 J	1600 U^c	82 U	90 U^c	940 U^c	470 U	910 U	1300 U^c	43 U	210 U	120 U	81 U^c
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	680 U	74 U	1000 U^c	53 U	58 U^c	610 U^c	300 U	590 U	840 U^c	28 U	130 U	80 U	52 U^c
Carbazole	21,000	89,000	89,000	2600	280	110 J	23	43	1400	250	40 U	550	26	290	8.4 J	61
Chrysene	35,000	230,000	230,000	12000	2900	600	160	1400	6400	2600	450	4500	240	2800	110	810
Dibenz(a,h)anthracene	1,000	22,000	270,000	2600	770	190 U	47	350	1300	650	110 U	930	48	660	26	250
Dibenzofuran	90,000	250,000	250,000	3300	840	560 U	69 J	46 J	960	850	320 U	1700	64	840	43 U	91
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	440 U	280	660 U	34 U	37 U	390 U	190 U	370 U	540 U	18 U	85 U	51 U	33 U
Fluoranthene	3,200,000	3,200,000	3,200,000	20000	3400	1100	180	1900	13000	2900	470	5400	290	4100	130	860
Fluorene	2,800,000	3,800,000	3,800,000	3000	540	180 J	29	43	1300	650	66 J	1300	32	810	10 J	65
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	7100	2000	390	120	1200	4300	1900	280	2400	160	1800	79	620
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	290 U	32 U	450 U	23 U	60 J	510 J	140 J	250 U	360 U	26 J	74 J	34 U	22 U
Naphthalene	13,000	25,000	25,000	8300	5600 E	180 J	93	130	4400	4800	120 J	11000	120	5900	41	190
Phenanthrene	10,000,000	10,000,000	10,000,000	26000	4200	930	260	460	11000	3400	420	6100	270	3400	120	720
Phenol	200,000	200,000	200,000	300 U	33 U	460 U	23 U	160	270 U	140 J	260 U	370 U	12 U	59 U	35 U	23 U
Pyrene	2,200,000	2,200,000	2,200,000	22000	3000	1000	270	2800	12000	3000	1200	4700	410	3700	140	920

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SS-03	85-SS-04	85-SB01-1	85-SB01-4	85-SB01-GWG-1	85-SB01-GWG-2	85-SB02-1	85-SB02-8	85-SB03-1	85-SB03-6.5	85-SB04-1	85-SB04-8	85-SB05-1
Date		Surface Soil	Subsurface Soil	9/15/2022	9/15/2022	10/3/2022	10/3/2022	10/4/2022	10/4/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/4/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	1.0	1.0	4.0	1.0	2.0	1.0	8.5	1.0	6.5	1.0	8.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	---	---	---	---	---	---	---	0.1 U
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	---	---	---	---	---	---	---	0.097 U
Aldrin	460	1,900	1,900	---	---	---	---	---	---	---	---	---	---	---	---	0.15 U
alpha-BHC	46	200	200	---	---	---	---	---	---	---	---	---	---	---	---	0.12 U
beta-BHC	210	880	880	---	---	---	---	---	---	---	---	---	---	---	---	0.13 U
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	---	---	---	0.12 U
delta-BHC	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	0.15 U*-
Dieldrin	110	470	470	---	---	---	---	---	---	---	---	---	---	---	---	0.12 U
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	---	---	---	---	---	---	---	0.13 U
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	---	---	---	---	---	---	---	0.11 U
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	---	---	---	---	---	---	---	0.22 U
Endrin	5,500	5,500	5,500	---	---	---	---	---	---	---	---	---	---	---	---	0.09 U
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	---	---	---	---	---	---	---	0.12 U
Heptachlor	680	680	680	---	---	---	---	---	---	---	---	---	---	---	---	0.15 U
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	---	---	---	---	---	---	---	0.19 U
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	---	---	---	0.11 U
PCBs (µg/kg) ⁽⁸⁾																
PCB-1248	9,300	46,000	67,000	4.8 U	4.3 U	7.2 U	4.6 U	5.1 U	4.3 U	5.4 U	6.7 U	5.9 U	4.9 U	4.7 U	4.7 U	4.5 U
PCB-1254	4,400	64,000	380,000	6 U	13 J	120	5.8 U	6.3 U	5.4 U	6.8 U	8.4 U	7.4 U	6.1 U	5.9 U	5.8 U	5.7 U
PCB-1260	9,300	46,000	630,000	420	5.1 U	8.6 U	5.5 U	6 U	5.1 U	6.4 U	8 U	7 U	5.8 U	5.6 U	9 J	5.4 U
Dioxins (ng/kg)																
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SS-03	85-SS-04	85-SB01-1	85-SB01-4	85-SB01-GWG-1	85-SB01-GWG-2	85-SB02-1	85-SB02-8	85-SB03-1	85-SB03-6.5	85-SB04-1	85-SB04-8	85-SB05-1
Date		Surface Soil	Subsurface Soil	9/15/2022	9/15/2022	10/3/2022	10/3/2022	10/4/2022	10/4/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/3/2022	10/4/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	1.0	1.0	4.0	1.0	2.0	1.0	8.5	1.0	6.5	1.0	8.0	1.0
Metals (mg/kg)																
Aluminum	190,000	190,000	190,000	3800	4700	5400	3000	14000	15000	3600	5100	3800	1500	2100	6900	11000
Antimony	27	27	27	0.72 J	0.57 J	2 U	0.32 U	1.8 J	1.2 U	0.33 U	1.4	0.38 U	0.25 U	0.27 U	1.1 U	0.34 U
Arsenic	12	29	29	17	3.8	18	8.6	13	11	6.2	29	12	3.2	5.3	8.2	11
Barium	8,200	8,200	8,200	170	77	600	40	190	160	76	140	110	8.7 J	47	60	110
Beryllium	320	320	320	0.85	1	0.38 J	0.38 J	2.2	2.1	1	0.53 J	1	0.1 J	0.98	0.8	1.6
Cadmium	38	38	38	1.3	0.16 J	1.8	0.1 J	0.71	0.44	0.36 J	0.84	0.94	0.061 U	0.28 J	1.2	0.99
Calcium	NE	NE	NE	2600	17000	13000	4100	49000	53000	12000	3800	6900	480	5600	7900	97000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	79	19	47	4.1	14	12	13	10	16	2.2	12	37	60
Cobalt	45	130	130	7.5	4.5	5 J	2.5 J	6.2	5.2	3.3 J	5.6 J	5.3 J	2.4 J	3.3 J	7	4.7 J
Copper	7,200	43,000	43,000	88	220	62	37	160	130	38	140	60	7.2	26	100	52
Iron	150,000	190,000	190,000	82000	14000	20000	11000	71000 B	61000 B	13000	22000	17000	4500	9900	54000	34000 B
Lead	450	450	450	1900	38	4000	31	150	160	64	280	140	11	50	87	64
Magnesium	NE	NE	NE	1100	1300	2100	1000	6100	5400	2600	1800	2100	540	1300	5100	44000
Manganese	2,000	2,000	2,000	610	420	170	140	1500	1700	260	250	380	39	200	5900	640
Mercury	10	10	10	55	0.54	0.83	0.17	0.025 J	0.029	0.21	1.4	0.64	0.12	0.29 FL	0.23	0.36
Nickel	650	650	650	27	21	14	5.4	15 J	13 J	9.9	15	15	4.3	8	24	15
Potassium	NE	NE	NE	340 J	380 J	610 J	260 J	1000	1100	340 J	540 J	620 J	170 J	200 J	460	570
Selenium	26	26	26	1.7	0.36 U	1.3	0.49 U	0.75 J	0.63 J	1.3	1.1 J	1.8	0.39 U	1	1.7 U	0.72 J
Silver	84	84	84	0.19 J	0.082 U	0.21 J	0.11 U	0.11 U	0.08 U	0.1 U	0.46 J	0.13 U	0.1 U	0.11 U	0.46 U	0.12 U
Sodium	NE	NE	NE	95 J	170 J	68 U	71 J	320 J	430	120 J	150 J	81 J	43 U	71 J	110 J	250 J
Thallium	2.2	14	14	0.4 J	0.22 U	0.38 U	0.3 U	0.31 J	0.39 J	0.31 U	0.39 U	0.36 U	0.24 U	0.25 U	1 U	0.32 U
Vanadium	15	220	680	18	11	13	5.7	18 J	20	8.6	11	12	3.3 J	6.7	45	14
Zinc	12,000	12,000	12,000	310	100	970	42	380	200	130	270	390	25	92	270	170

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SB05-6	87-SB01-1	87-SB01-7	87-SB02-1	87-SB02-1D	87-SB02-7	87-SB03-1	87-SB03-6	89-SB01-1	89-SB01-7	89-SB01-7D	89-SB02-1	89-SB02-8.5	89-SB03-1
Date		Surface Soil	Subsurface Soil	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/18/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022
Depth (ft bgs)		(0-2')	(2-15')	6.0	1.0	7.0	1.0	1.0	7.0	1.0	6.0	1.0	7.0	7.0	1.0	8.5	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.7 U^c	44 ^c	11 J^cF2	3.6 U^c	3.9 U^c	5 U	4.6 U	4.5 U^c	---	4.1 U	4 U	27 *3B^c	5.3 UB^c	5 U*3B^
Benzene	500	500	500	12	1.6 U	1.7 U	1.3 U	1.4 U	1.8 U	1.7 U	1.6 U	---	1.5 U	1.5 U	7.9 *3	2.4 J	1.8 U*3
Carbon disulfide	150,000	620,000	620,000	4.8 U	4.4 U	4.7 U	3.7 U	4 U	5.1 U	4.7 U	4.6 U	---	4.2 U	4.1 U	5.2 U*3	5.5 U	5.1 U*3
Cyclohexane	1,700,000	6,900,000	6,900,000	2.9 U	2.7 U	2.8 U	2.2 U	2.4 U	3 U	2.8 U	2.7 U	---	2.5 U	2.5 U	3.1 U*3	3.3 U	3.1 U*3
Ethylbenzene	70,000	70,000	70,000	2.2 U	2.1 U	2.2 U	1.7 U	1.8 U	2.4 U	2.2 U	2.1 U	---	1.9 U	1.9 U	2.4 U*3	2.5 U	2.4 U*3
Methylcyclohexane	NE	NE	NE	2.9 U	2.7 U	2.8 U	2.2 U	2.4 U	3.1 U	2.9 U	2.8 U	---	2.5 U*-*1	2.5 U*-*1	3.1 U*3^c	3.3 U^c	3.1 U*3^c
Styrene	24,000	24,000	24,000	1.8 U	1.7 U	1.8 U	1.4 U	1.5 U	1.9 U	1.8 U	1.7 U	---	1.6 U	1.5 U	1.9 U*3	2.1 U	1.9 U*3
Toluene	100,000	100,000	100,000	2.9 J	1.6 U	1.7 U	1.3 U	1.4 U	1.8 U	1.7 U	1.6 U	---	1.5 U	1.5 U	1.9 U*3	2 U	1.8 U*3
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.6 U	8 U	8.5 U	6.7 U	7.1 U	9.2 U	8.5 U	8.2 U	---	7.5 U	7.4 U	9.3 U*3	9.9 U	9.3 U*3
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	15 U	100 J	15 U	2000 U	2000 U	16 U	410	15 U	---	14 U	14 U	420	16 U	180 U
2,4-Dimethylphenol	69,000	190,000	190,000	14 U	66 U	13 UFL	1800 U	1800 U	14 U	130 U	14 U	---	13 U	13 U	46 U	15 U	160 U
2-Methylnaphthalene	25,000	100,000	100,000	60	510	5.1 JFL	7300	6100	2.1 U	1800	110	---	1.9 U	2.1 J	1500	4.7 J	300
2-Methylphenol	170,000	490,000	490,000	12 U	56 U	11 U	1600 U	1500 U	12 U	110 U	12 U	---	11 U	11 U	120 J	13 U	140 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	14 U	69 U	14 UFL	1900 U	1900 U	15 U	140 U	14 U	---	14 U	14 U	48 U	16 U	170 U
4-Chloroaniline	420	1,800	1,800	11 U	51 U	10 UFL	1400 U	1400 U	11 U	100 U	11 U	---	10 U	10 U	36 U	12 U	130 U
Acenaphthene	2,600,000	4,700,000	4,700,000	2.4 U	84	4.9 JFL	28000	38000	2.5 U	310	3.3 J	---	2.3 U	2.3 U	96	2.6 U	76 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	12	280	5.3 JFL	1200	1400	1.9 U	1200	11	---	1.7 U	1.7 U	480	3 J	350
Acetophenone	350,000	970,000	970,000	15 U	69 U	14 UFL	1900 U	1900 U	15 U	140 U	14 U	---	14 U	14 U	49 U	16 U	170 U
Anthracene	350,000	350,000	350,000	12	480	7.6 JFL	12000	15000	2.2 U	5500	11	---	9	2.1 U	670	2.5 J	510
Benzaldehyde	NE	NE	NE	5.1 U	24 U	5 UFL	670 U	660 U	5.3 U	49 U	5 U	---	4.9 U	4.9 J	840	5.6 U	60 U
Benzo[a]anthracene	6,100	130,000	340,000	78	860	100 FL	17000	25000	74	10000	55	---	16	6.6 J	1800	8.4 J	2300
Benzo[a]pyrene	4,200	46,000	46,000	64	740	88 FL	6500	8800	43	6300	53	---	13	4.8 J	1600	7.3 J	2100
Benzo[b]fluoranthene	3,500	76,000	170,000	88	1200	100 FL	11000	15000	53	9800	63	---	12	4.6 J	2800	7.3 J	2600
Benzo[g,h,i]perylene	180,000	180,000	180,000	35	790	42	2500	2900	36	5600	43	---	8.9	1.7 U	1200	6.2 J	1500
Benzo[k]fluoranthene	3,500	76,000	610,000	21	390	38 FL	2800	4700	13	2900	18	---	4.2 J	2.4 J	840	3 J	1000
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	44 U^c	210 U^c	43 U^c	5800 U^c	5700 U^c	46 U^c	420 U^c	43 U^c	---	42 U^c	42 U^c	500 J^c	48 U^c	520 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	28 U^c	130 U^c	27 U^c	3700 U^c	3700 U^c	29 U^c	270 U^c	28 U^c	---	27 U^c	27 U^c	94 U^c	31 U^c	330 U
Carbazole	21,000	89,000	89,000	3.4 J	120	1.9 UFL	1600	1500	2 U	850	5.5 J	---	1.8 U	1.9 U	140	2.1 U	220
Chrysene	35,000	230,000	230,000	70	820	82 FL	19000	26000	84	12000	51	---	14	7.4 J	2200	6.5 J	2500
Dibenz(a,h)anthracene	1,000	22,000	270,000	14	230	11	760 J	1100	13	2000	11	---	5.1 U	5.1 U	590	5.8 U	470
Dibenzofuran	90,000	250,000	250,000	19 J	240	15 UFL	15000	17000	16 U	1100	26 J	---	15 U	15 U	400	17 U	210 J
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	18 U	86 U	17 UFL	2400 U	2300 U	19 U	170 U	18 U	---	17 U	17 U	60 U	20 U	210 U
Fluoranthene	3,200,000	3,200,000	3,200,000	93	1200	51 FL	72000	110000	260	14000	64	---	24	8.9	1800	9 J	3600
Fluorene	2,800,000	3,800,000	3,800,000	1.6 U	150	2.2 JFL	20000	25000	1.7 U	1200	1.6 U	---	3 J	1.6 U	200	2.2 J	130
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	34	740	43 FL	1900	2400	26	5200	36	---	7.8 J	3.9 U	1600	5.5 J	1400
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	12 U	58 U	12 U	1600 U	1600 U	13 U	110 U	12 U	---	12 U	12 U	92 J	14 J	140 U
Naphthalene	13,000	25,000	25,000	32	630	8.2 FL	5500	4700	30	6500	74	---	2.9 J	4 J	1300	24	1400
Phenanthrene	10,000,000	10,000,000	10,000,000	75	1000	8.3 FL	45000	57000	2.3 U	8000	73	---	28	10	1700	6.5 J	1500
Phenol	200,000	200,000	200,000	12 U	59 U	12 U	1600 U	1600 U	13 U	120 U	12 U	---	12 U	12 U	42 U	14 U	150 U
Pyrene	2,200,000	2,200,000	2,200,000	100	1400	120	57000	90000	730	15000	98	---	27	11	2000	11	2700

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SB05-6	87-SB01-1	87-SB01-7	87-SB02-1	87-SB02-1D	87-SB02-7	87-SB03-1	87-SB03-6	89-SB01-1	89-SB01-7	89-SB01-7D	89-SB02-1	89-SB02-8.5	89-SB03-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/18/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022
Depth (ft bgs)				6.0	1.0	7.0	1.0	1.0	7.0	1.0	6.0	1.0	7.0	7.0	1.0	8.5	1.0
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	---	---	---	0.11 U	---	---	---	---	---
Aldrin	460	1,900	1,900	---	---	---	---	---	---	---	---	0.16 U	---	---	---	---	---
alpha-BHC	46	200	200	---	---	---	---	---	---	---	---	0.13 U	---	---	---	---	---
beta-BHC	210	880	880	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	0.13 U	---	---	---	---	---
delta-BHC	NE	NE	NE	---	---	---	---	---	---	---	---	0.17 U	---	---	---	---	---
Dieldrin	110	470	470	---	---	---	---	---	---	---	---	0.13 U	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	---	---	---	0.12 U	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	---	---	---	0.24 U	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	---	---	---	---	---	---	1.5	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	---	---	---	0.14 U	---	---	---	---	---
Heptachlor	680	680	680	---	---	---	---	---	---	---	---	0.16 U	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	---	---	---	0.21 U	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	0.12 U	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	4.9 U	4.8 U	4.9 U	4.4 U	4.4 U	5.2 U	4.7 U	4.7 U	---	4.9 U	4.7 U	5.6 U	5.3 U	5.8 U
PCB-1254	4,400	64,000	380,000	6.1 U	6 U	6.1 U	5.5 U	5.4 U	6.5 U	5.9 U	5.9 U	---	6.1 U	5.9 U	7 U	6.7 U	7.3 U
PCB-1260	9,300	46,000	630,000	5.8 U	5.7 U	5.8 U	5.2 U	5.2 U	6.2 U	5.6 U	5.6 U	---	5.8 U	5.6 U	6.6 U	6.3 U	6.9 U
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		85-SB05-6	87-SB01-1	87-SB01-7	87-SB02-1	87-SB02-1D	87-SB02-7	87-SB03-1	87-SB03-6	89-SB01-1	89-SB01-7	89-SB01-7D	89-SB02-1	89-SB02-8.5	89-SB03-1
Date		Surface Soil	Subsurface Soil	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	10/18/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022	9/30/2022
Depth (ft bgs)		(0-2')	(2-15')	6.0	1.0	7.0	1.0	1.0	7.0	1.0	6.0	1.0	7.0	7.0	1.0	8.5	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	19000	12000	1400 FH	4700	3900 4	1600	2800	4800	---	---	---	---	---	---
Antimony	27	27	27	1.3 U	0.27 U	0.28 UFL	0.34 U	1.3 FL	0.34 U	0.29 J	1.4 U	---	---	---	---	---	---
Arsenic	12	29	29	11	6.1	2.9	8	10	2.3	6.3	20	---	---	---	---	---	---
Barium	8,200	8,200	8,200	160	180	7.7 J	88	74 FH	5.1 J	56	58	---	---	---	---	---	---
Beryllium	320	320	320	2.3	3	0.099 U	0.93	0.88	0.17 J	0.83	0.48	---	---	---	---	---	---
Cadmium	38	38	38	0.46	0.26 J	0.067 U	0.44 J	0.29 J	0.081 U	0.28 J	0.069 U	---	---	---	---	---	---
Calcium	NE	NE	NE	74000	77000	570	38000	26000 4	1200	7800	3000	---	---	---	---	---	---
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	11	11	3	12	17	2.9	16	21	---	---	---	---	---	---
Cobalt	45	130	130	5.2	2.4 J	2.6 J	3.9 J	4.1 J	2.3 J	4.2 J	5.4	---	---	---	---	---	---
Copper	7,200	43,000	43,000	23	35	2.5	830	100 FHF2	4.4	32	26	---	---	---	---	---	---
Iron	150,000	190,000	190,000	69000 B	17000	4200 4	19000	36000 B4F2	6700	13000	98000	---	---	---	---	---	---
Lead	450	450	450	80	58	5.6	67	74 FL	11	43	120	---	---	---	---	---	---
Magnesium	NE	NE	NE	7500	9000	610	6100	6200 FHF2	890	1900	830	---	---	---	---	---	---
Manganese	2,000	2,000	2,000	1500	1600	36 FH	650	580 4	120	240	910	---	---	---	---	---	---
Mercury	10	10	10	0.046	0.022 U	0.032 J	0.17	0.049	0.022 U	0.19	0.042	---	---	---	---	---	---
Nickel	650	650	650	16 J	8.5	4.6	12	12	4.5	14	11 J	---	---	---	---	---	---
Potassium	NE	NE	NE	4200	790	220 J	440 J	380 JFHF2	220 J	340 J	490	---	---	---	---	---	---
Selenium	26	26	26	0.4 U	1.6	0.42 U	1.6	0.88 J	0.51 U	1	2	---	---	---	---	---	---
Silver	84	84	84	0.091 U	0.11 U	0.12 U	0.11 U	0.1 U	0.13 U	0.11 U	0.11 U	---	---	---	---	---	---
Sodium	NE	NE	NE	2000	420 J	47 U	180 J	170 JFHF2	62 J	94 J	130 J	---	---	---	---	---	---
Thallium	2.2	14	14	0.25 U	0.26 U	0.26 U	0.31 U	0.28 UFL	0.32 U	0.26 U	0.61 J	---	---	---	---	---	---
Vanadium	15	220	680	26	6.1	3.2 J	10	11	2.7 J	29	26	---	---	---	---	---	---
Zinc	12,000	12,000	12,000	310	53	17	200	140 4F2	41	120	62	---	---	---	---	---	---

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		89-SB03-13	103-SB01-1	103-SB01-5	103-SB02-1	103-SB02-4	104-SB01-1	104-SB01-1D	104-SB02-1	104-SB02-8	SS-SB01-1	SB01-1	SB-01-I	SB-01-S
Date		Surface Soil	Subsurface Soil	9/30/2022	10/5/2022	10/5/2022	10/11/2022	10/11/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	9/29/2022	9/30/2022	9/26/2022	9/26/2022
Depth (ft bgs)		(0-2')	(2-15')	13.0	1.0	5.0	1.0	4.0	1.0	1.0	1.0	1.0	8.0	1.0	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																
Acetone	3,100,000	8,800,000	8,800,000	4.4 UB^c	4.1 U	5.3 U^c	4.5 U^c	4.7 U	6 U	6.2 U	4.5 U	4.2 U^c	3.9 U*3^c	4.1 U*3B^	4.6 U^c	32 ^c
Benzene	500	500	500	20	1.5 U	1.9 U	1.6 U	1.7 U	2.2 U	2.2 U	1.6 U	1.5 U	1.4 U*3	1.5 U*3	1.7 U	38
Carbon disulfide	150,000	620,000	620,000	4.5 U	4.2 U	5.4 U	4.7 U	4.8 U	6.2 U	6.3 U	4.6 U	4.3 U	4 U*3	4.3 U*3	4.7 U	3.8 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.7 U	2.5 U	3.3 U	2.8 U	2.9 U	3.7 U	3.8 U	2.7 U	2.6 U	2.4 U*3	2.5 U*3	2.8 U	2.3 U
Ethylbenzene	70,000	70,000	70,000	2.1 U	2 U	2.5 U	2.2 U	2.2 U	2.9 U	2.9 U	2.1 U	2 U	1.9 U*3	2 U*3	2.2 U	1.8 U
Methylcyclohexane	NE	NE	NE	2.7 U^c	2.5 U	3.3 U	2.8 U	2.9 U	3.7 U	3.8 U	2.8 U	2.6 U	2.4 U*3	2.6 U*3^c	2.8 U	2.3 U
Styrene	24,000	24,000	24,000	1.7 U	1.6 U	2 U	1.7 U	1.8 U	2.3 U	2.4 U	1.7 U	1.6 U	1.5 U*3	1.6 U*3	1.8 U	1.4 U
Toluene	100,000	100,000	100,000	3.4 J	1.5 U	2 U	1.7 U	1.7 U	2.2 U	2.3 U	1.6 U	1.6 U	1.4 U*3	1.5 U*3	1.7 U	3.3 J
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.1 U	7.6 U	9.8 U	8.4 U	8.6 U	11 U	11 U	8.2 U	7.8 U	7.3 U*3	7.7 U*3	8.4 U	6.9 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																
1,1'-Biphenyl	370	1,500	1,500	15 U	560	16 U	14 U	15 U	68	32 J	480	14 U	17 J	270 U	76 U	89 J
2,4-Dimethylphenol	69,000	190,000	190,000	14 U	120 U	15 U	13 U	13 U	95	39 J	130 U	13 U	13 U	250 U	69 U	71 J
2-Methylnaphthalene	25,000	100,000	100,000	50	1500	2.9 J	75	8.6	470	180	2300	100	120	690	180	280
2-Methylphenol	170,000	490,000	490,000	12 U	100 U	13 U	11 U	11 U	64	35 J	110 U	11 U	11 U	210 U	59 U	31 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	15 U	120 U	16 U	13 U	14 U	18 U	18 U	130 U	13 U	14 U	260 U	72 U	38 U
4-Chloroaniline	420	1,800	1,800	11 U	93 U	12 U	9.8 U	10 U	14 U	14 U	99 U	9.9 U	10 U	200 U	54 U	29 U
Acenaphthene	2,600,000	4,700,000	4,700,000	5 J	20 U	5.7 J	52	2.3 U	98	23	200	9.6	11	47 J	150	6.3 U
Acenaphthylene	2,400,000	6,600,000	6,600,000	12	55 J	2 U	110	1.8 U	2.3 U	10	820	1.6 U	42	790	1500	480
Acetophenone	350,000	970,000	970,000	15 U	130 U	16 U	13 U	14 U	18 U	18 U	130 U	14 J	14 U	260 U	640	810
Anthracene	350,000	350,000	350,000	19	100	2.3 U	120	4.9 J	120	83	1400	4.8 J	60	1600	1200	750
Benzaldehyde	NE	NE	NE	5.2 U	44 U	5.6 U	4.7 U	5 U	6.4 U	6.5 U	47 U	4.7 U	4.8 U	92 U	140 J	14 U
Benzo[a]anthracene	6,100	130,000	340,000	62	320	5.4 J	290	6.6 J	200	200	3900	12	150	5700	4700	1400
Benzo[a]pyrene	4,200	46,000	46,000	58	240	3.9 U	360	3.5 U	120	130	2800	8.5	110	4800	3900	1500
Benzo[b]fluoranthene	3,500	76,000	170,000	75	390	4.8 J	480	5.9 J	250	250	4800	15	160	6600	5000	1800
Benzo[g,h,i]perylene	180,000	180,000	180,000	48	280	2.5 J	320	2.3 J	140	160	3100	12	120	3600	3400	1100
Benzo[k]fluoranthene	3,500	76,000	610,000	20	81	2.7 U	180	2.4 U	51	52	1200	2.8 J	53	2000	1700	670
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	45 U^c	380 U^c	48 U^c	40 U	43 U	55 U^c	55 U^c	400 U^c	40 U^c	41 U	790 U	220 U^c	120 U^c
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	29 U^c	240 U^c	31 U^c	26 U	27 U	36 U^c	36 U^c	260 U^c	26 U^c	27 U	510 U	140 U	75 U
Carbazole	21,000	89,000	89,000	8.1 J	57 J	2.1 U	51	1.9 U	35	34	370	1.8 U	19	540	680	200
Chrysene	35,000	230,000	230,000	64	650	5 U	340	8.9	300	290	4900	21	220	6500	3200	1400
Dibenz(a,h)anthracene	1,000	22,000	270,000	15	110	5.7 U	82	5.1 U	61	69	1100	4.8 U	53	1100	1000	370
Dibenzofuran	90,000	250,000	250,000	17 J	130 U	16 U	60	15 U	19 U	38 J	980	41	36 J	540 J	220	400
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	18 U	160 U	21 J	69	18 U	23 U	23 U	170 U	16 U	39	330 U	90 U^c	48 U^c
Fluoranthene	3,200,000	3,200,000	3,200,000	67	460	6 J	400	17	180	150	4800	16	230	7900	8100	3800
Fluorene	2,800,000	3,800,000	3,800,000	9.5	390	2.9 J	58	5.4 J	160	73	790	14	22	210	230	520
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	45	190	4.5 U	260	4 U	110	120	2700	6.5 J	90	3300	3500	1100
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	12 U	100 U	13 U	11 U	12 U	190	87	110 U	11 U	11 U	220 U	61 U	44 J
Naphthalene	13,000	25,000	25,000	600	660	3.4 J	110	6.7 J	130	86	5500	67	120	1200	840	2400
Phenanthrene	10,000,000	10,000,000	10,000,000	70	1000	6 J	300	21	560	380	4900	86	260	2300	3000	2700
Phenol	200,000	200,000	200,000	13 U	110 U	14 U	11 U	12 U	79	43 J	110 U	11 U	12 U	230 U	85 J	110
Pyrene	2,200,000	2,200,000	2,200,000	95	450	8.1 J	410	11	260	230	5000	21	150	6500	4400	2800

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		89-SB03-13	103-SB01-1	103-SB01-5	103-SB02-1	103-SB02-4	104-SB01-1	104-SB01-1D	104-SB02-1	104-SB02-8	SS-SB01-1	SB01-1	SB-01-I	SB-01-S
Date		Surface Soil	Subsurface Soil	9/30/2022	10/5/2022	10/5/2022	10/11/2022	10/11/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	9/29/2022	9/30/2022	9/26/2022	9/26/2022
Depth (ft bgs)		(0-2')	(2-15')	13.0	1.0	5.0	1.0	4.0	1.0	1.0	1.0	8.0	1.0	1.0	1.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																
4,4'-DDD	30,000	120,000	120,000	---	0.018 U	---	---	---	0.027 UF2	---	---	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	0.018 U	---	---	---	0.026 UF2	---	---	---	---	---	---	---
Aldrin	460	1,900	1,900	---	0.027 U	---	---	---	0.04 UF2	---	---	---	---	---	---	---
alpha-BHC	46	200	200	---	0.022 U	---	---	---	0.032 UF2FL	---	---	---	---	---	---	---
beta-BHC	210	880	880	---	0.024 U	---	---	---	0.036 UF2	---	---	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	0.022 U	---	---	---	0.033 UF2	---	---	---	---	---	---	---
delta-BHC	NE	NE	NE	---	0.028 U*-	---	---	---	0.041 UFL*-	---	---	---	---	---	---	---
Dieldrin	110	470	470	---	0.022 U	---	---	---	0.033 UF2FL	---	---	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	0.024 U	---	---	---	0.035 UF2	---	---	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	0.019 U	---	---	---	0.029 UF2FL	---	---	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	0.04 U	---	---	---	0.06 UF2FL	---	---	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	0.017 U	---	---	---	0.024 UF2	---	---	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	0.023 U	---	---	---	0.033 UF2FL	---	---	---	---	---	---	---
Heptachlor	680	680	680	---	0.028 U	---	---	---	0.041 UF2	---	---	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	0.034 U	---	---	---	0.051 UF2	---	---	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	0.02 U	---	---	---	0.03 UF2	---	---	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																
PCB-1248	9,300	46,000	67,000	5 U	4.3 U	5.3 U	4.6 U	4.8 U	6.2 U	6.1 U	4.6 U	4.4 U	4.6 U	4.4 U	5 U	4.4 U
PCB-1254	4,400	64,000	380,000	6.2 U	9.9 J	6.6 U	5.7 U	6 U	7.8 U	7.7 U	5.7 U	5.5 U	5.8 U	5.5 U	6.2 U	5.5 U
PCB-1260	9,300	46,000	630,000	5.9 U	5.1 U	6.3 U	54	5.7 U	7.4 U	7.3 U	5.4 U	5.3 U	5.5 U	5.2 U	30 ^c	42
Dioxins (ng/kg)																
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1																
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																
ERIE COKE SITE																
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		89-SB03-13	103-SB01-1	103-SB01-5	103-SB02-1	103-SB02-4	104-SB01-1	104-SB01-1D	104-SB02-1	104-SB02-8	SS-SB01-1	SB01-1	SB-01-I	SB-01-S
Date		Surface Soil	Subsurface Soil	9/30/2022	10/5/2022	10/5/2022	10/11/2022	10/11/2022	10/4/2022	10/4/2022	10/4/2022	10/4/2022	9/29/2022	9/30/2022	9/26/2022	9/26/2022
Depth (ft bgs)		(0-2')	(2-15')	13.0	1.0	5.0	1.0	4.0	1.0	1.0	1.0	8.0	1.0	1.0	1.0	1.0
Metals (mg/kg)																
Aluminum	190,000	190,000	190,000	---	970	2200	3800	6500	1400	1100	1400	9300	930	---	3200	5000
Antimony	27	27	27	---	0.26 U	0.36 U	1.4 U	1.7 U	0.48 U	0.39 U	0.54 J	2.7 U	0.33 U	---	0.46 J	1.6 U
Arsenic	12	29	29	---	3	2.7	6.8	35 U	3.3	3.9	5.8	22	2.3	---	9.5	15
Barium	8,200	8,200	8,200	---	32	15 J	56	500	24 J	20 J	39	100	22	---	53	66
Beryllium	320	320	320	---	0.57	0.13 U	0.65	1.1	0.18 J	0.2 J	0.68	1.2	0.19 J	---	0.37 J	0.58
Cadmium	38	38	38	---	0.063 U	0.087 U	0.32 J	0.18 J	0.12 U	0.094 U	0.11 J	0.066 U	0.13 J	---	2.6	0.078 U
Calcium	NE	NE	NE	---	530	2300	18000	5300	1100	1000	7000	27000	1400	---	5300	16000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	---	5.1	3.4	24	18	2.8	2.1	20	17	3.9	---	16	27
Cobalt	45	130	130	---	4.3	3.6 J	3.5 J	17	1.6 J	1.4 J	4.2 J	6.8	1.7 J	---	5.8 J	5 J
Copper	7,200	43,000	43,000	---	18	4.4	35	19	7.9	7.7	20	26	11	---	26	72
Iron	150,000	190,000	190,000	---	6500	8700	52000	250000	3500 B	2900 B	13000 B	200000 B	14000	---	25000 B	150000 B
Lead	450	450	450	---	8.5	17	32	16	2.9	1.7	24	27	6.5	---	100	44
Magnesium	NE	NE	NE	---	180 J	750	2700	1400	290 J	200 J	3000	3800	270 J	---	1900	2700
Manganese	2,000	2,000	2,000	---	27	75	1200	29000	81	30	160	2000	150	---	660	2000
Mercury	10	10	10	---	0.048	0.033 J	0.11	0.019 U	0.027 U	0.028 U	0.12	0.25	0.024 U	---	0.27	0.15
Nickel	650	650	650	---	7	5.7	50	9.9 J	2.5 J	1.9 J	12	18 J	3.5 J	---	14	15 J
Potassium	NE	NE	NE	---	73 U	240 J	300 J	630	220 J	140 J	220 J	1000	140 J	---	530 J	460 J
Selenium	26	26	26	---	1.3	0.54 U	0.93	26 U	0.72 U	0.87 J	1.3	0.41 U	0.74 J	---	1.8	2.9
Silver	84	84	84	---	0.09 U	0.12 U	0.095 U	5.9 U	0.16 U	0.13 U	0.096 U	0.093 U	0.11 U	---	0.28 J	0.12 J
Sodium	NE	NE	NE	---	53 J	82 J	120 J	81 J	80 U	68 J	70 J	170 J	56 U	---	130 J	150 J
Thallium	2.2	14	14	---	0.24 U	0.34 U	0.26 J	16 U	0.45 U	0.36 U	0.26 U	0.93 J	0.31 U	---	0.36 U	0.74 J
Vanadium	15	220	680	---	9.9	6	11 J	47	2.5 J	2.4 J	47	42 J	3.1 J	---	15	33
Zinc	12,000	12,000	12,000	---	13	24	110	140	13	6.4	69	220	31	---	420	85

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-02-1	SB-02-5	SB-03-1	SB-03-5	SB-04-1*	SB-04-3	SB-04-5	SB-05-10	SB-05-1	SB-06-1	SB-06-5	SB-07-1*	SB-07-8	SS-SB09-9	SB-10-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/29/2022	10/18/2022
Depth (ft bgs)				1.0	5.0	1.0	5.0	1.0	3.0	5.0	10.0	1.0	1.0	5.0	1.0	8.0	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																		
Acetone	3,100,000	8,800,000	8,800,000	3.8 U^c	6.8 J^c	3.7 U^c	3.9 U^c	4.8 U^c	38 ^c	4.6 U^c	4.1 U^c	13 J^cB	4 U^c	3.8 U^c	4.5 U^c	4.4 U^c	4.4 U^c	---
Benzene	500	500	500	1.4 U	1.5 U	4.8	4 J	1.7 U	2.3 U	1.7 U	1.5 U	1.6 U	1.4 U	1.4 U	1.6 U	1.6 U	1.6 U	---
Carbon disulfide	150,000	620,000	620,000	3.9 U	4.2 U	3.8 U	3.9 U	4.9 U	6.5 U	4.7 U	4.2 U	4.6 U	4.1 U	3.9 U	4.7 U	4.5 U	4.5 U	---
Cyclohexane	1,700,000	6,900,000	6,900,000	2.3 U	2.5 U	2.3 U	2.4 U	2.9 U	3.9 U	2.8 U	2.5 U	2.7 U	2.4 U	2.3 U	2.8 U	2.7 U	2.7 U	---
Ethylbenzene	70,000	70,000	70,000	1.8 U	2 U*3	1.8 U	1.8 U	2.3 U	3 U	2.2 U	2 U	2.1 U	1.9 U	1.8 U	2.2 U	2.1 U	2.1 U	---
Methylcyclohexane	NE	NE	NE	2.3 U	2.5 U	2.3 U	2.4 U	3 U	3.9 U	2.8 U	2.6 U	2.8 U^c	2.4 U	2.3 U	2.8 U	2.7 U	2.7 U	---
Styrene	24,000	24,000	24,000	1.4 U	1.6 U*3	1.4 U	1.5 U	1.8 U	2.4 U	1.8 U	1.6 U	1.7 U	1.5 U	1.4 U	1.7 U	1.7 U	1.7 U	---
Toluene	100,000	100,000	100,000	1.4 U	1.5 U*3	1.4 U	1.4 U	1.8 U	2.3 U	1.7 U	1.5 U	1.7 U	1.5 U	1.4 U	1.7 U	1.6 U	1.6 U	---
Xylenes, Total	1,000,000	1,000,000	1,000,000	7 U	7.6 U*3	6.9 U	7.1 U	8.9 U	12 U	8.5 U	7.6 U	8.3 U	7.3 U	6.9 U	8.4 U	8.1 U	8.1 U	---
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																		
1,1'-Biphenyl	370	1,500	1,500	13 U	140 J	69 U	1100	16 U	5900 U	30 U	14 U	2900 U	190 J	230 J	350 U	13 U	15 U	---
2,4-Dimethylphenol	69,000	190,000	190,000	12 U	61 U	63 U	310 U	15 U	5400 U	28 U	13 U	2600 U	130 U	130 U	320 U	12 U	14 U	---
2-Methylnaphthalene	25,000	100,000	100,000	10	850	260	3600	64	1600 J	4 U	1.9 U	1600	710	750	1000	1.8 U	1.9 U	---
2-Methylphenol	170,000	490,000	490,000	11 U	52 U	54 U	270 U	13 U	4600 U	24 U	11 U	2300 U	110 U	110 U	270 U	11 U	12 U	---
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	13 U	64 U	66 U	330 U	16 U	5600 U	29 U	14 U	2800 U	140 U	130 U	340 U	13 U	14 U	---
4-Chloroaniline	420	1,800	1,800	9.7 U	48 U	49 U	250 U	12 U	4200 U	22 U	10 U	2100 U	100 U	98 U	250 U	9.6 U	11 U	---
Acenaphthene	2,600,000	4,700,000	4,700,000	2.1 U	71	64	470	11	3700	6.1 J	2.2 U	630 J	160	140	160 J	2.1 U	2.3 U	---
Acenaphthylene	2,400,000	6,600,000	6,600,000	14	840	1700	9500	36	18000	66	1.7 U	11000	1600	1700	2100	1.6 U	1.8 U	---
Acetophenone	350,000	970,000	970,000	13 U	110 J	140 J	330 U	16 U	5700 U	29 U	14 U	2800 U	140 U	130 U	340 U	13 U	14 U	---
Anthracene	350,000	350,000	350,000	11	560	760	8000	38	16000	56	2 U	13000	1700	1300	1700	1.9 U	2.1 U	---
Benzaldehyde	NE	NE	NE	4.6 U	23 U	23 U	120 U	20 J	2000 U	10 U	4.8 U	980 U	48 U	47 U	120 U	4.5 U	5 U	---
Benzo[a]anthracene	6,100	130,000	340,000	35	2000	3000	14000	220	80000	180	3.5 U	49000	4000	3000	5100	3.3 U	3.6 U	---
Benzo[a]pyrene	4,200	46,000	46,000	37	2600	4300	17000	300	76000	190	3.4 J	38000	3900	3500	4200	3.2 U	3.5 U	---
Benzo[b]fluoranthene	3,500	76,000	170,000	47	3000	4700	20000	390	85000	190	1.9 U	46000	4700	3900	4900	1.8 U	2 U	---
Benzo[g,h,i]perylene	180,000	180,000	180,000	34	2200	3800	14000	270	53000	120	1.7 U	22000	2900	2400	3200	1.6 U	1.7 U	---
Benzo[k]fluoranthene	3,500	76,000	610,000	21	1200	2000	6600	100	50000	87	2.3 U	17000	1800	1500	2800	2.2 U	2.4 U	---
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	39 U	190 U	200 U	1000 U	47 U	17000 U	88 U	42 U	8400 U	410 U	400 U	1000 U	39 U	43 U	---
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	25 U	130 U	130 U	640 U	31 U	11000 U	57 U	27 U	5400 U	270 U	260 U	660 U	25 U	28 U	---
Carbazole	21,000	89,000	89,000	3.3 J	130	180	2700	29	13000	7.6 J	1.8 U	1800	250	390	670	1.7 U	1.9 U	---
Chrysene	35,000	230,000	230,000	43	1900	3000	13000	250	93000	170	4.3 U	42000	3800	2800	4800	4.1 U	4.5 U	---
Dibenz(a,h)anthracene	1,000	22,000	270,000	7.8	510	1000	3100	69	14000	31	5 U	6300	770	690	880	4.7 U	5.1 U	---
Dibenzofuran	90,000	250,000	250,000	14 U	340	180 J	4400	18 J	6200 J	31 U	14 U	2900 U	560	690	600 J	14 U	15 U	---
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	16 J	80 U	82 U	410 U	27 J	7000 U	44 J	18 J	3500 U	170 U	160 U	420 U	24 J	53	---
Fluoranthene	3,200,000	3,200,000	3,200,000	55	2700	3600	30000	360	200000	360	3.8 J	100000	7500	4100	8500	1.9 U	2.1 U	---
Fluorene	2,800,000	3,800,000	3,800,000	1.4 U	120	100	4800	9.5	5500	9.6 J	1.5 U	2200	580	490	590	1.4 U	1.6 U	---
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	26	2000	3500	13000	220	49000	110	3.9 U	22000	2700	2300	2900	3.6 U	4 U	---
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	11 U	54 U	55 U	270 U	13 U	4700 U	24 U	11 U	2300 U	110 U	140 J	280 U	11 U	12 U	---
Naphthalene	13,000	25,000	25,000	44	2100	1600	24000	68	1900 J	20	1.5 U	4100	2200	9000	2000	1.4 U	1.6 U	---
Phenanthrene	10,000,000	10,000,000	10,000,000	27	1500	1100	30000	200	150000	130	3 J	35000	4500	2200	6400	2 U	2.2 U	---
Phenol	200,000	200,000	200,000	11 U	55 U	57 U	280 U	13 U	4900 U	25 U	12 U	2400 U	120 U	170 J	290 U	11 U	12 U	---
Pyrene	2,200,000	2,200,000	2,200,000	47	2400	3500	24000	320	180000	310	3.6 J	87000	6000	3300	7100	1.7 U	1.9 U	---

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-02-1	SB-02-5	SB-03-1	SB-03-5	SB-04-1*	SB-04-3	SB-04-5	SB-05-10	SB-05-1	SB-06-1	SB-06-5	SB-07-1*	SB-07-8	SS-SB09-9	SB-10-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/29/2022	10/18/2022
Depth (ft bgs)				1.0	5.0	1.0	5.0	1.0	3.0	5.0	10.0	1.0	1.0	5.0	1.0	8.0	1.0	1.0
Pesticides (µg/kg) ⁽⁶⁾																		
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	1.4	---	---	---	---	---	---	0.11 U	---	---	0.17 U
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	0.1 UF2	---	---	---	---	---	---	0.1 U	---	---	0.17 U
Aldrin	460	1,900	1,900	---	---	---	---	0.15 U	---	---	---	---	---	---	0.16 U	---	---	0.25 U
alpha-BHC	46	200	200	---	---	---	---	0.12 U	---	---	---	---	---	---	0.13 U	---	---	0.2 U
beta-BHC	210	880	880	---	---	---	---	0.14 U	---	---	---	---	---	---	0.14 U	---	---	0.22 U
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.12 U	---	---	---	---	---	---	0.13 U	---	---	0.2 U
delta-BHC	NE	NE	NE	---	---	---	---	0.16 U	---	---	---	---	---	---	0.16 U	---	---	0.26 U
Dieldrin	110	470	470	---	---	---	---	1.3 ^cFHF	---	---	---	---	---	---	0.13 U	---	---	4.9 ^c
Endosulfan I	110,000	260,000	260,000	---	---	---	---	0.13 U	---	---	---	---	---	---	0.14 U	---	---	0.22 U
Endosulfan II	120,000	260,000	260,000	---	---	---	---	0.11 UF2	---	---	---	---	---	---	0.11 U	---	---	0.18 U
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	0.23 UF2	---	---	---	---	---	---	0.23 U	---	---	0.37 U
Endrin	5,500	5,500	5,500	---	---	---	---	0.8 pFLF2	---	---	---	---	---	---	0.096 U	---	---	11
gamma-BHC (Lindane)	72	72	72	---	---	---	---	0.13 U	---	---	---	---	---	---	0.13 U	---	---	0.21 U
Heptachlor	680	680	680	---	---	---	---	0.16 U	---	---	---	---	---	---	0.16 U	---	---	0.25 U
Methoxychlor	630,000	630,000	630,000	---	---	---	---	0.19 U	---	---	---	---	---	---	0.2 U	---	---	0.32 U
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.12 U	---	---	---	---	---	---	0.12 U	---	---	0.19 U
PCBs (µg/kg) ⁽⁸⁾																		
PCB-1248	9,300	46,000	67,000	4.5 U	4.5 U	4.5 U	4.5 U	5.3 U	7.6 U	5.1 U	4.7 U	4.7 U	4.6 U	4.4 U	4.6 U	4.4 U	5 U	---
PCB-1254	4,400	64,000	380,000	5.7 U	310	5.6 U	5.6 U	6.7 U	9.5 U	6.3 U	5.8 U	5.9 U	5.7 U	5.5 U	5.7 U	5.5 U	6.2 U	---
PCB-1260	9,300	46,000	630,000	7.5 J^c	5.3 U	21 ^c	11 J	26	270 ^c	6 U	5.5 U	41 ^c	25 ^c	24 ^c	23	5.2 U	5.9 U	---
Dioxins (ng/kg)																		
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-02-1	SB-02-5	SB-03-1	SB-03-5	SB-04-1*	SB-04-3	SB-04-5	SB-05-10	SB-05-1	SB-06-1	SB-06-5	SB-07-1*	SB-07-8	SS-SB09-9	SB-10-1
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/27/2022	9/29/2022	10/18/2022
Depth (ft bgs)				1.0	5.0	1.0	5.0	1.0	3.0	5.0	10.0	1.0	1.0	5.0	1.0	8.0	1.0	1.0
Metals (mg/kg)																		
Aluminum	190,000	190,000	190,000	5700	4000	4300	19000	5500	4400	730	59000	2900	7500 4	6000	5000	48000	45000	---
Antimony	27	27	27	0.28 U	1.5 U	1.5 J	0.27 U	1.6	0.4 U	6.9	1.7 U	1.5 U	0.71 JFL	0.38 J	1.5 U	1.5 U	0.32 U	---
Arsenic	12	29	29	8.6	17	13	7.1	11	5.7	7.4	3.5 U	17	11	10	13	3.5 J	3.4	---
Barium	8,200	8,200	8,200	37	71	73	130	49	18 J	100	410	61	100 FL	110	79	940	190	---
Beryllium	320	320	320	0.32 J	0.72	0.7	2.5	0.35 J	0.23 J	0.12 U	10	0.54	1	0.98	0.87	7.4	4.5	---
Cadmium	38	38	38	0.37 J	0.49	0.49	0.45	2.6	0.25 J	9.2	0.41 U	0.37 J	0.58	0.32 J	1	0.35 U	0.14 J	---
Calcium	NE	NE	NE	1300	95000	120000	140000	4600	21000	7200	250000	5600	32000 F24	130000	29000	240000	250000	---
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	10	19	180	13	61	8.3	40	6	43	12	11	51	2.3 J	2.1	---
Cobalt	45	130	130	6.5	4.7 J	6.4	3.7 J	7.4	7.4	7.2	3.9 U	7.9	5.5 J	3.5 J	7	3.4 U	0.91 J	---
Copper	7,200	43,000	43,000	29	50	44	44	100	1300	12	7.5 U	40	55 B	39 B	87 B	7.3 U	4.9	---
Iron	150,000	190,000	190,000	35000 B	83000 B	120000 B	58000 B	42000 B	20000 B	100000 B	1300 B	87000 B	27000 4B	47000 B	62000 B	1200 B	7200	---
Lead	450	450	450	20	89	65	80	260	910	10	9	34	81	54	73	4.2 U	0.93 U	---
Magnesium	NE	NE	NE	2000	8800	14000	16000	1700	9500	1500	32000	1300	6700 F2FLF	17000	11000	45000	18000	---
Manganese	2,000	2,000	2,000	500	1800	2300	2300	550	340	550	1700	1100	1100 4B	1100 B	2000 B	2900 B	1000	---
Mercury	10	10	10	0.033 J	0.22	0.38	0.34	0.095	0.39	0.017 U	0.021 U	0.093	0.33	0.083	0.14	0.019 U	0.026 U	---
Nickel	650	650	650	17	11 J	160	8.4	35	17	27	2.8 U	43	14	11	42	2.4 U	1.7 J	---
Potassium	NE	NE	NE	510	520	340 J	1300	770	570 J	100 J	940 J	270 J	550 J	560	440 J	2200 J	530 J	---
Selenium	26	26	26	0.71 J	2.1	3.1 J	2.1	1.2	0.6 U	2.2	3.5 J	2.2	0.8 J	2.2	1.2	5.4	2.7	---
Silver	84	84	84	0.097 U	0.15 J	0.46 U	0.093 U	0.22 J	0.14 U	0.23 J	0.58 U	0.11 U	0.12 U	0.12 U	0.1 U	0.5 U	0.11 U	---
Sodium	NE	NE	NE	48 U	170 J	200 J	480	91 J	240 J	55 U	720 J	88 J	160 J	210 J	280 J	750 J	370 J	---
Thallium	2.2	14	14	0.3 J	0.41 J	1.3 U	0.25 U	0.29 U	0.37 U	0.45 J	1.6 U	0.49 J	0.33 U	0.46 J	0.44 J	1.4 U	0.3 U	---
Vanadium	15	220	680	13	30	26	14	9.3	11	14 J	5.6 J	20 J	13	13	40	9.9 J	6.2 J	---
Zinc	12,000	12,000	12,000	82	190	200	130	360	88	2100	6.7 U	80	160 4	120	120	5.7 U	1.3 J	---

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
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CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-11-1	SB-11-4	SB-12-1*	SB-12-2.5	SB-12-2.5D	SB-13-1	SB-13-6	SB-14-1	SB-14-5	SB-15-1	SB-15-4.5	SB-16-1	SB-16-3.5	SB-17-1
Date		Surface Soil	Subsurface Soil	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/30/2022	9/30/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	4.0	1.0	2.5	2.5	1.0	6.0	1.0	5.0	1.0	4.5	1.0	3.5	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.4 U	140 E*3B^	3.9 U^c*3	8.8 U^c*3	5.4 U^c	4.4 U^c	6.9 U^c	4.5 U^c	5.4 U^c	5.2 U^c	4.5 U^c	4.6 UB^c	4.4 U	5.5 U^c
Benzene	500	500	500	1.6 U	1.4 U*3	1.4 U*3	3.2 U*3	1.9 U	1.6 U	2.5 U	1.6 U	1.9 U	1.9 U	1.6 U	1.7 U	1.6 U	2 U
Carbon disulfide	150,000	620,000	620,000	4.5 U	3.9 U*3	4 U*3	9 U*3	5.5 U	4.5 U	7.1 U	4.6 U	5.5 U	5.3 U	4.6 U	4.7 U	4.5 U	5.6 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.7 U	2.3 U*3	2.4 U*3	5.4 U*3	3.3 U	2.7 U	4.2 U	2.8 U	3.3 U	3.2 U	2.7 U	2.8 U	2.7 U	3.4 U
Ethylbenzene	70,000	70,000	70,000	2.1 U	1.8 U*3	1.8 U*3	4.2 U*3	2.6 U	2.1 U	3.3 U	2.1 U*3	2.6 U	2.5 U	2.1 U	2.2 U	2.1 U	2.6 U
Methylcyclohexane	NE	NE	NE	2.7 U	2.3 U*3^c	2.4 U*3	5.4 U*3	3.3 U	2.7 U	4.3 U	2.8 U	3.3 U	3.2 U	2.8 U	2.8 U^c	2.7 U*-*1	3.4 U
Styrene	24,000	24,000	24,000	1.7 U	1.5 U*3	1.5 U*3	3.4 U*3	2.1 U	1.7 U	2.7 U	1.7 U*3	2.1 U	2 U	1.7 U	1.8 U	1.7 U	2.1 U
Toluene	100,000	100,000	100,000	1.6 U	1.4 U*3	1.4 U*3	3.2 U*3	2 U	1.6 U	2.6 U	1.7 U*3	2 U	1.9 U	1.7 U	1.7 U	1.6 U	2 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.1 U	7 U*3	7.1 U*3	16 U*3	10 U	8.1 U	13 U	8.3 U*3	10 U	9.6 U	8.3 U	8.5 U	8.2 U	10 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	55 U	530 U	270 U	630 U	190 U	14 U	450 U	62 U	37 J	180 U	15 U	220 UFL	16 U	410 UFL
2,4-Dimethylphenol	69,000	190,000	190,000	50 U	490 U	250 U	580 U	180 U	13 U	420 U	57 U	33 U	170 U	14 U	200 UFL	15 U	380 UFL
2-Methylnaphthalene	25,000	100,000	100,000	20 J	77 J	150	240 J	220	11	310	160	90	47 J	2 U	29 UFL	9.7	65 JFL
2-Methylphenol	170,000	490,000	490,000	43 U	420 U	210 U	500 U	150 U	11 U	350 U	49 U	28 U	140 U	12 U	170 UFL	13 U	320 UFL
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	53 UFL	510 U	260 U	610 U	180 U	14 U	430 U	60 U	34 U	170 U	15 U	210 UFL	15 U	400 UFL
4-Chloroaniline	420	1,800	1,800	64 JFL	380 U	190 U	450 U	140 U	10 U	320 U	45 U	26 U	130 U	11 U	160 UFL	11 U	300 UFL
Acenaphthene	2,600,000	4,700,000	4,700,000	36 F2	84 U	170	290 J	230	6.7 J	250	18 J	13 J	130	2.4 U	35 UFL	7.5 J	65 UFL
Acenaphthylene	2,400,000	6,600,000	6,600,000	19 J	150 J	150	880	290	15	63 J	33 J	15 J	43 J	3.5 J	27 UFL	27	770 FLF2
Acetophenone	350,000	970,000	970,000	53 U	510 U	260 U	610 U	180 U	14 U	440 U	60 U	35 U	180 U	15 U	210 UFL	15 U	400 UFL
Anthracene	350,000	350,000	350,000	120 FLFHF	450	570	1600	890	23	310	87	160	210	2.2 J	39 JFL	64	800 FLF2
Benzaldehyde	NE	NE	NE	19 U	180 U	91 U	210 U	65 U	120	150 U	21 U	12 U	61 U	5.2 U	75 UFL	5.4 U	140 UFL
Benzo[a]anthracene	6,100	130,000	340,000	290 FHF2	940	2000	6100	2900	95	650	290	310	470	25	150 FL	260	3700 4F2
Benzo[a]pyrene	4,200	46,000	46,000	260 FHF2	750	1800	5400	2700	74	510	240	140	390	19	300 FL	230	3400 FLF2
Benzo[b]fluoranthene	3,500	76,000	170,000	290 FLFHF	730	1600	5300	2700	86	650	290	210	450	20	210 FL	220	4900 4F2
Benzo[g,h,i]perylene	180,000	180,000	180,000	220 FHF2	680	1000	4200	1900	73	420	260	88	310	12	470 FLF2	160	2500 FLF2
Benzo[k]fluoranthene	3,500	76,000	610,000	120 F2	360	870	2200	990	35	240 J	64	43	120	5.8 J	92 JFL	100	1600 FLF2
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	160 U	1500 U	780 U	1800 U	560 U	42 U	1600 J	180 U	100 U	670 J	45 U	1400 JFH^c	46 U^c	1200 U^c
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	100 U	1000 U	510 U	1200 U	360 U	32 J	850 U	120 U	67 U	340 U	29 U	420 UFL^c	30 U^c	780 UFL^c
Carbazole	21,000	89,000	89,000	46 F2	81 J	180	270 J	300	11	290	27 J	39	120	2 U	28 UFL	4.2 J	120 JFL
Chrysene	35,000	230,000	230,000	270 FHF2	730	1800	5400	2600	85	730	460	410	440	21	180 FL	210	3300 FLF2
Dibenz(a,h)anthracene	1,000	22,000	270,000	49	190 U	300	1200	540	18	160 U	160	29	100	5.4 U	78 UFL	43	780 FLF2
Dibenzofuran	90,000	250,000	250,000	55 UF2	540 U	270 U	640 U	250 J	14 U	460 U	63 U	86 J	180 U	16 U	220 UFL	16 U	420 UFL
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	80 J	640 U	320 U	760 U	230 U	58	540 U	74 U	81 J	220 U	35 J	270 UFL	19 U	500 UFL
Fluoranthene	3,200,000	3,200,000	3,200,000	680 FLFHF	2100	3700	11000	5700	180	1900	240	630	1100	31	220 FL	330	6200 4F2
Fluorene	2,800,000	3,800,000	3,800,000	41 F2	110 J	210	430	300	8.3	600	42	53	100	1.7 U	24 UFL	14	79 JFL
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	160 FHF2	470	870	3900	1700	59	370	130	65	250	12	140 FL	140	2400 FLF2
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	44 U	430 U	220 U	510 U	150 U	11 U	360 U	50 U	29 U	150 U	12 U	180 UFL	13 U	330 UFL
Naphthalene	13,000	25,000	25,000	16 J	57 U	250	330 J	350	10	200 J	92	36	52 J	1.6 U	24 UFL	19	85 JFL
Phenanthrene	10,000,000	10,000,000	10,000,000	420 FLFHF	1200	2100	5000	3000	84	1600	350	670	920	4.5 J	130 FL	170	1200 FLF2
Phenol	200,000	200,000	200,000	45 UFL	440 U	220 U	520 U	160 U	12 U	370 U	51 U	30 U	150 U	13 U	180 UFL	13 U	340 UFL
Pyrene	2,200,000	2,200,000	2,200,000	520 FLFHF	1500	2900	8100	3900	120	1300	240	430	800	25	230 FL	400	6300 4F2

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
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CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-11-1	SB-11-4	SB-12-1*	SB-12-2.5	SB-12-2.5D	SB-13-1	SB-13-6	SB-14-1	SB-14-5	SB-15-1	SB-15-4.5	SB-16-1	SB-16-3.5	SB-17-1
Date		Surface Soil	Subsurface Soil	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/30/2022	9/30/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	4.0	1.0	2.5	2.5	1.0	6.0	1.0	5.0	1.0	4.5	1.0	3.5	1.0
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	0.1 U	---	---	---	---	---	---	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	0.74	---	---	---	---	---	---	---	---	---	---	---
Aldrin	460	1,900	1,900	---	---	0.15 U	---	---	---	---	---	---	---	---	---	---	---
alpha-BHC	46	200	200	---	---	0.12 U	---	---	---	---	---	---	---	---	---	---	---
beta-BHC	210	880	880	---	---	0.13 U	---	---	---	---	---	---	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.12 U	---	---	---	---	---	---	---	---	---	---	---
delta-BHC	NE	NE	NE	---	---	0.16 U	---	---	---	---	---	---	---	---	---	---	---
Dieldrin	110	470	470	---	---	1.5 ^c	---	---	---	---	---	---	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	0.13 U	---	---	---	---	---	---	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	0.11 U	---	---	---	---	---	---	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	0.23 U	---	---	---	---	---	---	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	0.092 U	---	---	---	---	---	---	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	0.13 U	---	---	---	---	---	---	---	---	---	---	---
Heptachlor	680	680	680	---	---	0.15 U	---	---	---	---	---	---	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	0.19 U	---	---	---	---	---	---	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.11 U	---	---	---	---	---	---	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	4.4 U	4.4 U	4.3 U	11 U	6.3 U	4.6 U	500	5.1 U	5.9 U	5.9 U	5.1 U	4.9 U	5.3 U	5.5 U
PCB-1254	4,400	64,000	380,000	5.5 U	16 J	23	13 U	7.8 U	53	9.2 U	6.4 U	7.4 U	7.4 U	6.4 U	73	6.6 U	2100
PCB-1260	9,300	46,000	630,000	460	5.2 U	5.1 U	19 J	14 J	5.4 U	110	6 U	7 U	920	6 U	5.8 U	6.2 U	6.5 U
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-11-1	SB-11-4	SB-12-1*	SB-12-2.5	SB-12-2.5D	SB-13-1	SB-13-6	SB-14-1	SB-14-5	SB-15-1	SB-15-4.5	SB-16-1	SB-16-3.5	SB-17-1
Date		Surface Soil	Subsurface Soil	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/29/2022	9/30/2022	9/30/2022	10/5/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	4.0	1.0	2.5	2.5	1.0	6.0	1.0	5.0	1.0	4.5	1.0	3.5	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	6400	6500	5300	8600	4900	12000	3600	1200	20000	6000	1700	---	---	17000 4
Antimony	27	27	27	5.4	0.79 J	0.25 J	3	1.6	0.31 U	1.2 J	0.31 U	2.8 J	5.1	0.33 U	---	---	1.8 UFL
Arsenic	12	29	29	13	8.6	8.7	39	20	20	10	2.4	28	13	3	---	---	19
Barium	8,200	8,200	8,200	160	180	56	410	260	52	84	20	140	250	5.3 J	---	---	1000 4
Beryllium	320	320	320	0.34 J	0.29 J	0.26 J	0.89 J	0.54	0.5	0.32 J	0.23 J	2.9	0.36 J	0.12 U	---	---	0.46 J
Cadmium	38	38	38	32	0.67	0.96	11	6.2	0.23 J	2.1	0.18 J	11	8.8	0.079 U	---	---	9.6
Calcium	NE	NE	NE	5000	29000	29000	9900	7400	2900	18000	1100	73000	17000	760	---	---	27000 4
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	200	16	9.9	79	47	17	24	3.4	44	36	2.5	---	---	120
Cobalt	45	130	130	22	6.1	4.9	14	8.7	13	4.6 J	2.2 J	8.4	6.6	3.3 J	---	---	11
Copper	7,200	43,000	43,000	220	37	26	210	130	37	46	9.6	49	110	2.8	---	---	300 4
Iron	150,000	190,000	190,000	29000	15000	15000	37000	24000	41000	16000	4200	110000	25000	4900	---	---	16000 4B
Lead	450	450	450	180	380	91	580	410	68	410	13	1200	620	7.5	---	---	5100 F24
Magnesium	NE	NE	NE	6000	3600	5700	15000	8000	4600	4100	250 J	11000	4100	690	---	---	7400
Manganese	2,000	2,000	2,000	350	370	320	410	240	410	170	34	3900	350	44	---	---	750 B4
Mercury	10	10	10	1.7 4	0.24	0.14	5.2	3.6	0.076	0.76	0.023 U	6.1	0.51	0.014 U	---	---	0.77
Nickel	650	650	650	74	16	14	110	64	33	16	3.6 J	21 J	31	5.6	---	---	150
Potassium	NE	NE	NE	720	740	640	880 J	350 J	1200	510 J	170 J	730	660	220 J	---	---	1700
Selenium	26	26	26	1.3	0.52 J	0.49 J	1.6 J	1.6	0.72 J	1.1 J	1	4.6 J	1.2	0.5 U	---	---	2
Silver	84	84	84	4	0.087 U	0.079 U	3.4	2	0.11 U	0.18 J	0.11 U	2.1 J	0.78	0.11 U	---	---	7.4
Sodium	NE	NE	NE	45 U	120 J	50 J	140 J	81 J	54 J	120 J	52 U	150 J	82 J	55 U	---	---	1300
Thallium	2.2	14	14	0.25 U	0.24 U	0.21 U	0.73 U	0.34 U	0.29 U	0.41 U	0.29 U	6.5 J	0.35 U	0.31 U	---	---	0.33 U
Vanadium	15	220	680	15	12	11	23	12	15	9.6	3.2 J	49	14	3.3 J	---	---	20
Zinc	12,000	12,000	12,000	430	260	99	500	350	290	230	26	4500	480	39	---	---	1200 4

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-17-8	SB-18-11	SB-18-1	SB-18-8	SB-19-1	SB-19-6.5	SB-20-1	SB-20-7	SB-21-1	SB-21-8	SB-22-1	SB-22-13.5	SB-22-13.5D	SB-23-1
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/10/2022
Depth (ft bgs)		(0-2')	(2-15')	8.0	11.0	1.0	8.0	1.0	6.5	1.0	7.0	1.0	8.0	1.0	13.5	13.5	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	5.9 U^c	5.4 U	10 U	4.3 U	4.9 U	5.4 U	4.3 U^c	4.5 U^c	4.3 U^c	4.4 U^c	4.6 U	4.5 U^c	4.5 U	4.7 U^c
Benzene	500	500	500	2.1 U	2 U	3.8 U	1.6 U	1.8 U	1.9 U	1.6 U	1.6 U	1.6 U	1.6 U	1.7 U	1.6 U	1.6 U	1.7 U
Carbon disulfide	150,000	620,000	620,000	6 U	5.6 U	11 U	4.4 U	5 U	5.5 U	4.4 U	4.6 U	4.4 U	4.5 U	4.7 U	4.7 U	4.7 U	4.9 U
Cyclohexane	1,700,000	6,900,000	6,900,000	3.6 U	3.3 U	6.4 U	2.6 U	3 U	3.3 U	2.7 U	2.7 U	2.7 U	2.7 U	2.8 U	2.8 U	2.8 U	2.9 U
Ethylbenzene	70,000	70,000	70,000	2.8 U	2.6 U	5 U	2 U	2.3 U	2.5 U	2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U	2.2 U	2.2 U
Methylcyclohexane	NE	NE	NE	3.6 U	3.3 U	6.5 U	2.7 U	3 U	3.3 U	2.7 U	2.8 U	2.7 U	2.7 U	2.8 U	2.8 U	2.8 U	2.9 U
Styrene	24,000	24,000	24,000	2.3 U	2.1 U	4 U	1.7 U	1.9 U	2.1 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U
Toluene	100,000	100,000	100,000	2.2 U	2 U	3.9 U	1.6 U	1.8 U	2 U	1.6 U	1.7 U	1.6 U	1.6 U	1.7 U	1.7 U	1.7 U	1.7 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	11 U	10 U	19 U	8 U	9 U	9.9 U	8 U	8.3 U	8 U	8.1 U	8.5 U	8.4 U	8.4 U	8.7 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	17 U	82 U	3200 U	13 U	150 U	16 U	14 U	23 J	140 U	15 J	14 U	14 U	14 U	63 J
2,4-Dimethylphenol	69,000	190,000	190,000	16 U	75 U	2900 U	12 U	140 U	15 U	13 U	13 U	130 U	12 U	13 U	13 U	13 U	53 U
2-Methylnaphthalene	25,000	100,000	100,000	2.3 U	11 U	13000	83	450	7.2 J	100	260	530	140	5.6 J	1.9 U	1.8 U	380
2-Methylphenol	170,000	490,000	490,000	14 U	64 U	2500 U	10 U	120 U	12 U	11 U	11 U	110 U	10 U	11 U	11 U	11 U	45 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	17 U	78 U	3100 U	12 U	150 U	15 U	13 U	13 U	130 U	13 U	14 U	14 U	13 U	56 U
4-Chloroaniline	420	1,800	1,800	12 U	59 U	2300 U	9.3 U	110 U	11 U	9.8 U	10 U	99 U	9.6 U	10 U	10 U	10 U	42 U
Acenaphthene	2,600,000	4,700,000	4,700,000	2.7 U	13 U	1800	4.1 J	120	2.5 U	5.9 J	2.2 U	60 J	2.1 U	2.2 U	2.2 U	2.2 U	170
Acenaphthylene	2,400,000	6,600,000	6,600,000	6.3 J	9.8 U	3400	11	610	1.9 U	15	1.7 U	530	1.6 U	2.4 J	1.7 U	1.7 U	280
Acetophenone	350,000	970,000	970,000	17 U	79 U	3100 U	13 U	150 U	15 U	13 U	30 J	130 U	13 U	14 U	14 U	13 U	56 U
Anthracene	350,000	350,000	350,000	5.8 J	12 U	7300	15	760	2.9 J	23	15	670	1.9 U	2.4 J	2 U	2 U	570
Benzaldehyde	NE	NE	NE	5.9 U	28 U	1100 U	4.4 U	52 U	5.9 J	4.7 U	4.7 U	47 U	4.5 U	4.8 U	4.8 U	4.7 U	20 U
Benzo[a]anthracene	6,100	130,000	340,000	31	170	12000	110	2800	9.1	61	40	2100	35	11	3.5 U	3.4 U	2000
Benzo[a]pyrene	4,200	46,000	46,000	38	110	5800	110	2400	7.4 J	51	27	1800	20	8.9	3.3 U	3.3 U	2100
Benzo[b]fluoranthene	3,500	76,000	170,000	40	56	13000	150	3500	9.6	57	40	2400	37	14	1.9 U	1.9 U	3000
Benzo[g,h,i]perylene	180,000	180,000	180,000	44	170	3600	100	1800	5.8 J	36	31	1800	21	6.8 J	1.7 U	1.6 U	2000
Benzo[k]fluoranthene	3,500	76,000	610,000	9.3 J	13 U	3400	43	1200	3.4 J	33	16	890	2.2 U	4.7 J	2.3 U	2.3 U	800
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	51 U^c	240 U^c	9300 U^c	38 U^c	440 U	46 U	40 U	40 U	400 U	39 U	41 U	41 U	40 U	170 U^c
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	33 U	150 U^c	6000 U^c	24 U^c	290 U	30 U	26 U	26 U	260 U	25 U	27 U	26 U	26 U	110 U
Carbazole	21,000	89,000	89,000	2.2 U	10 U	3100	5.5 J	230	2.1 J	7.3 J	11	220	1.7 U	1.8 U	1.8 U	1.8 U	440
Chrysene	35,000	230,000	230,000	40	220	13000	130	3000	14	77	73	2300	72	13	4.3 U	4.2 U	2300
Dibenz(a,h)anthracene	1,000	22,000	270,000	14	48	1600 J	27	530	5.6 U	9.7	6.8 J	430	10	4.9 U	4.9 U	4.9 U	560
Dibenzofuran	90,000	250,000	250,000	18 U	82 U	9300	20 J	350 J	16 U	59	78	290 J	41	14 U	14 U	14 U	260
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	21 U	98 U	3800 U	16 U	180 U	19 U	16 U	17 U	170 U	16 U	17 U	17 U	17 U	69 U
Fluoranthene	3,200,000	3,200,000	3,200,000	32	18 J	25000	110	4000	9.7	110	57	2500	43	16	2 U	2 U	4300
Fluorene	2,800,000	3,800,000	3,800,000	1.9 U	8.8 U	9800	6.5 J	240	1.8 J	9.9	9.8	130	1.4 U	1.5 U	1.5 U	1.5 U	290
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	25	39 J	3500	88	1500	4.3 U	30	19	1400	9.3	6.1 J	3.8 U	3.8 U	1700
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	14 U	66 U	2600 U	10 U	120 U	13 U	11 U	11 U	110 U	11 U	11 U	11 U	11 U	46 U
Naphthalene	13,000	25,000	25,000	1.9 U	8.7 U	88000	41	1100	9.2	63	170	890	62	5.7 J	1.5 U	1.5 U	400
Phenanthrene	10,000,000	10,000,000	10,000,000	13	12 U	35000	71	2100	18	150	190	1700	140	14	2.1 U	2 U	3500
Phenol	200,000	200,000	200,000	14 U	68 U	2600 U	11 U	130 U	13 U	11 U	12 U	110 U	11 U	12 U	12 U	12 U	48 U
Pyrene	2,200,000	2,200,000	2,200,000	31	230	19000	140	3300	9.9	94	52	2500	57	15	1.8 U	1.8 U	3600

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CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-17-8	SB-18-11	SB-18-1	SB-18-8	SB-19-1	SB-19-6.5	SB-20-1	SB-20-7	SB-21-1	SB-21-8	SB-22-1	SB-22-13.5	SB-22-13.5D	SB-23-1
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/10/2022
Depth (ft bgs)		(0-2')	(2-15')	8.0	11.0	1.0	8.0	1.0	6.5	1.0	7.0	1.0	8.0	1.0	13.5	13.5	1.0
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	0.046 UFL*3	---	---	---	---	---	0.2 UFL	---	---	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	0.045 UFL*3	---	---	---	---	---	0.19 UFL	---	---	---	---	---
Aldrin	460	1,900	1,900	---	---	0.069 UFL	---	---	---	---	---	0.29 UFL	---	---	---	---	---
alpha-BHC	46	200	200	---	---	0.054 UFL	---	---	---	---	---	0.23 UFL	---	---	---	---	---
beta-BHC	210	880	880	---	---	0.061 UFL	---	---	---	---	---	0.26 UFL	---	---	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.055 UFL	---	---	---	---	---	9.2 4p	---	---	---	---	---
delta-BHC	NE	NE	NE	---	---	0.07 UFL*-	---	---	---	---	---	0.3 UFL	---	---	---	---	---
Dieldrin	110	470	470	---	---	0.055 U*3FL	---	---	---	---	---	0.24 UFL	---	---	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	0.06 UFL	---	---	---	---	---	0.25 UFL	---	---	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	0.049 UFL*3	---	---	---	---	---	0.21 UFL	---	---	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	0.1 UFL*3	---	---	---	---	---	0.43 UFL	---	---	---	---	---
Endrin	5,500	5,500	5,500	---	---	0.042 UFL*3	---	---	---	---	---	0.18 UFL^c	---	---	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	0.057 UFL	---	---	---	---	---	0.24 UFL	---	---	---	---	---
Heptachlor	680	680	680	---	---	0.069 UFL	---	---	---	---	---	5.5 FL^c	---	---	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	0.086 UFL*3	---	---	---	---	---	0.37 UFL^c	---	---	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.051 UFL	---	---	---	---	---	13 4	---	---	---	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	5.6 U	5.5 U	11 U	4.3 U	5 U	5.3 U	4.5 U	4.4 U	4.6 U	4.3 U	4.7 U	4.7 U	4.6 U	4.9 U
PCB-1254	4,400	64,000	380,000	7 U	6.9 U	13 U	5.3 U	140	6.6 U	5.7 U	5.5 U	5.7 U	5.4 U	5.8 U	5.9 U	5.7 U	6.1 U
PCB-1260	9,300	46,000	630,000	6.7 U	6.5 U	32 J	5.1 U	5.9 U	6.2 U	5.4 U	5.3 U	35	5.1 U	5.5 U	5.6 U	5.4 U	5.8 U
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-17-8	SB-18-11	SB-18-1	SB-18-8	SB-19-1	SB-19-6.5	SB-20-1	SB-20-7	SB-21-1	SB-21-8	SB-22-1	SB-22-13.5	SB-22-13.5D	SB-23-1
Date		Surface Soil	Subsurface Soil	10/5/2022	10/5/2022	10/5/2022	10/5/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/10/2022
Depth (ft bgs)		(0-2')	(2-15')	8.0	11.0	1.0	8.0	1.0	6.5	1.0	7.0	1.0	8.0	1.0	13.5	13.5	1.0
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	13000	12000	19000	7800	2200	2200	4200	600	4200	6400	14000	22000	21000	8500
Antimony	27	27	27	0.31 U	0.39 U	0.68 U	0.59 J	0.61 J	5.3 J	1.6 J	1.3 U	0.32 U	0.4 J	1.3 U	1.6 U	1.5 U	3.7
Arsenic	12	29	29	8.6	8.9	26	4.1	12	44	24	22	23	19	2.9 J	3.3 U	3.3 J	74
Barium	8,200	8,200	8,200	85	76	200	47	88	100	140	49	120	43	940	540	580	110
Beryllium	320	320	320	0.6	0.66	1.4	0.85	1	2.3	1.1	0.28 J	1.7	0.29 J	5.9	11	11	0.88
Cadmium	38	38	38	0.15 J	0.21 J	0.28 J	0.19 J	0.6	0.085 U	1.6	0.063 U	0.99	0.065 U	0.31 U	0.39 U	0.36 U	1
Calcium	NE	NE	NE	1800	1100	2800	250000	9700 B	3500 B	61000 B	6800 B	36000 B	7400 B	210000 B	250000 B	250000 B	20000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	17	13	19	5	19	61	29	37	19	38	9.1	3.2	3	24 B
Cobalt	45	130	130	10	16	94	1.2 J	5	8.7	8.2	3.3 J	5.4	8.4	3 U	3.7 U	3.5 U	9
Copper	7,200	43,000	43,000	39	22	40	5.4	58	140	87	45	55	48	13	8 U	7.5 U	55
Iron	150,000	190,000	190,000	24000 B	18000	43000 B	17000	14000 B	110000 B	43000 B	65000 B	26000 B	45000 B	4000 B	1100 B	780 B	67000 B
Lead	450	450	450	170	29	1200	6.2	84	40	180	61	78	12	5.6	4.6 U	4.3 U	150
Magnesium	NE	NE	NE	3700	2800	4100	35000	2900	2600	20000	640	7000	790	25000	13000	13000	1000
Manganese	2,000	2,000	2,000	190 B	120	210 B	380	170	410	660	300	520	310	1100	650	630	750 B
Mercury	10	10	10	1.3	0.17	0.29	0.025 J	0.24	0.02 U	0.065	0.024 U	1.6	0.025 J	0.019 U	0.018 U	0.018 U	0.5 FH
Nickel	650	650	650	26	33	130	3.6 J	6.9	9.2	11	5	10	5.4	2.1 J	1.3 J	0.72 J	15 B
Potassium	NE	NE	NE	1000	1100	1600	190 J	470	500 J	1200	1200	820	700	2600	2600	2500	1800
Selenium	26	26	26	0.84 J	0.59 U	2.2	0.65 J	1.5	1.4	2.6	0.91	1.9	1.2	6.3	9.4	8.1	3
Silver	84	84	84	0.11 U	0.13 U	0.23 U	0.11 U	0.095 U	0.88	0.25 J	0.089 U	0.11 U	0.092 U	0.44 U	0.55 U	0.52 U	0.13 U
Sodium	NE	NE	NE	95 J	110 J	340 J	220 J	120 J	190 J	940	360 J	230 J	93 J	1100 J	2400 J	2400 J	360 J
Thallium	2.2	14	14	0.29 U	0.36 U	0.64 U	0.29 U	0.26 U	1.6 J	0.64 J	1 J	0.37 J	0.94 J	1.2 U	1.5 U	1.4 U	0.64 J
Vanadium	15	220	680	17	18	23	6.9	15	99	25	57	18	59	7.3 J	5.7 J	6.4 J	26
Zinc	12,000	12,000	12,000	190	640	2100	28	210 B	650 B	490 B	66 B	170 B	28 B	16 B	6.3 UB	5.9 UB	140

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-23-6	SB-24-11.5	SB-24-1	SB-25-1	SB-25-5	SB-26-1	SB-26-9	SB-27-1	SB-27-8	SB-28-1	SB-28-5.5	SB-29-1	SB-29-7.5	SB-29-7.5D
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)					6.5	11.5	1.0	1.0	5.0	1.0	9.0	1.0	8.0	1.0	5.5	1.0	7.5
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
Acetone	3,100,000	8,800,000	8,800,000	4.2 U^c	4.8 U^c	4.6 U^c	4.4 U^c	4.5 U^c	4.4 U^c	4.2 U^c	4.4 U^c	4.1 U^c	4.5 U^c	5.4 U^c	4.6 U	4.6 U	4.8 U
Benzene	500	500	500	1.5 U	1.7 U	1.7 U	1.6 U	1.6 U	1.6 U	1.5 U	1.6 U	1.5 U	1.6 U	1.9 U	1.7 U	1.7 U	1.7 U
Carbon disulfide	150,000	620,000	620,000	4.3 U	4.9 U	4.8 U	4.5 U	4.6 U	4.6 U	4.3 U	4.5 U	4.2 U	4.6 U	5.5 U	4.7 U	4.7 U	4.9 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.6 U	2.9 U	2.8 U	2.7 U	2.8 U	2.7 U	2.6 U	2.7 U	2.5 U	2.8 U	3.3 U	2.8 U	2.8 U	2.9 U
Ethylbenzene	70,000	70,000	70,000	2 U	2.3 U	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2.1 U	1.9 U	2.1 U	2.6 U	2.2 U	2.2 U	2.3 U
Methylcyclohexane	NE	NE	NE	2.6 U	2.9 U	2.9 U	2.7 U	2.8 U	2.7 U	2.6 U	2.7 U	2.5 U	2.8 U	3.3 U	2.9 U	2.8 U	2.9 U
Styrene	24,000	24,000	24,000	1.6 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.6 U	1.7 U	1.6 U	1.7 U	2.1 U	1.8 U	1.8 U	1.8 U
Toluene	100,000	100,000	100,000	1.6 U	1.8 U	1.7 U	1.6 U	1.7 U	1.6 U	1.5 U	1.6 U	1.5 U	1.7 U	2 U	1.7 U	1.7 U	1.8 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	7.8 U	8.8 U	8.6 U	8 U	8.3 U	8.2 U	7.7 U	8.1 U	7.5 U	8.4 U	10 U	8.6 U	8.5 U	8.8 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	370	1,500	1,500	330 U	14 U	14 U	200 U	550 U	14 U	13 U	27 J	12 U	14 U	16 U	21 J	14 U	14 U
2,4-Dimethylphenol	69,000	190,000	190,000	300 U	13 U	13 U	190 U	510 U	13 U	12 U	24 U	11 U	13 U	15 U	13 U	13 U	13 U
2-Methylnaphthalene	25,000	100,000	100,000	180	1.9 U	34	740	2600	84	1.7 U	110	1.6 U	13	15	73	1.9 U	1.9 U
2-Methylphenol	170,000	490,000	490,000	250 U	11 U	11 U	160 U	430 U	11 U	10 U	21 U	9.6 U	11 U	13 U	11 U	11 U	11 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	310 U	14 U	14 U	190 U	530 U	13 U	12 U	25 U	12 U	13 U	16 U	14 U	14 U	14 U
4-Chloroaniline	420	1,800	1,800	230 U	10 U	10 U	150 U	400 U	9.8 U	9.2 U	19 U	8.8 U	10 U	12 U	10 U	10 U	10 U
Acenaphthene	2,600,000	4,700,000	4,700,000	170 J	2.3 U	5.1 J	180	160 J	5.5 J	2 U	32	1.9 U	2.2 U	2.6 U	3.4 J	2.3 U	2.3 U
Acenaphthylene	2,400,000	6,600,000	6,600,000	220	1.7 U	68	2600	3100	7.9	1.5 U	500	1.5 U	3.4 J	2 U	12	1.7 U	1.7 U
Acetophenone	350,000	970,000	970,000	310 U	14 U	14 U	200 U	540 U	13 U	12 U	26 U	12 U	13 U	16 U	14 U	14 U	14 U
Anthracene	350,000	350,000	350,000	430	2.1 U	36	2400	4100	25	1.8 U	160	1.7 U	3 J	2.3 U	16	2 U	2.1 U
Benzaldehyde	NE	NE	NE	110 U	4.9 U	4.9 U	69 U	190 U	4.6 U	4.4 U	10 J	4.2 U	4.7 U	5.6 U	4.9 U	4.9 U	4.9 U
Benzo[a]anthracene	6,100	130,000	340,000	1200	4 J	110	10000	15000	55	3.2 U	900	3 U	6.7 J	4.1 U	33	3.5 U	3.6 U
Benzo[a]pyrene	4,200	46,000	46,000	1200	4.6 J	92	8700	15000	31	3 U	880	2.9 U	5.5 J	3.9 U	26	3.4 U	3.4 U
Benzo[b]fluoranthene	3,500	76,000	170,000	1700	6.4 J	160	14000	21000	52	1.7 U	1800	1.7 U	10	4.2 J	45	1.9 U	1.9 U
Benzo[g,h,i]perylene	180,000	180,000	180,000	1300	4.8 J	79	7100	12000	31	1.5 U	950	1.5 U	6.8 J	2 J	26	1.7 U	1.7 U
Benzo[k]fluoranthene	3,500	76,000	610,000	540	2.4 U	43	4800	5600	14	2.1 U	390	2 U	3.4 J	2.7 U	16	2.4 U	2.4 U
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	950 U^c	42 U^c	42 U^c	590 U^c	1600 U^c	40 U^c	37 U^c	77 U^c	36 U^c	41 U^c	48 U^c	42 U	42 U	42 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	610 U	27 U	27 U	380 U	1000 U	31 J	24 U	50 U	23 U	26 U	31 U	27 U	27 U	27 U
Carbazole	21,000	89,000	89,000	280	1.9 U	11	630	2000	11	1.6 U	24	1.6 U	1.8 U	2.1 U	6.7 J	1.8 U	1.9 U
Chrysene	35,000	230,000	230,000	1300	4.4 U	120	10000	15000	86	3.9 U	1100	3.7 U	9.9	8.6 J	59	4.3 U	4.4 U
Dibenz(a,h)anthracene	1,000	22,000	270,000	410	5.1 U	27	2700	3200	13	4.5 U	360	4.3 U	4.9 U	5.8 U	7 J	5 U	5.1 U
Dibenzofuran	90,000	250,000	250,000	330 U	15 U	17 J	480 J	970 J	42	13 U	110	12 U	14 U	17 U	23 J	14 U	15 U
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	390 U	17 U	17 U	240 U	660 U	16 U	15 U	32 U	15 U	17 U	20 U	43	32 J	42
Fluoranthene	3,200,000	3,200,000	3,200,000	2300	5.7 J	170	16000	28000	57	1.9 U	1000	1.8 U	10	3.9 J	54	2.1 U	2.1 U
Fluorene	2,800,000	3,800,000	3,800,000	270	1.6 U	10	330	910	8.6	1.4 U	56	1.3 U	1.6 J	1.8 U	5.4 J	1.5 U	1.6 U
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	1000	3.9 U	76	6900	11000	20	3.5 U	900	3.3 U	5.9 J	4.5 U	18	3.9 U	3.9 U
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	260 U	12 U	11 U	160 U	440 U	11 U	10 U	21 U	9.9 U	11 U	13 U	11 U	12 U	12 U
Naphthalene	13,000	25,000	25,000	240	1.5 U	82	1900	3500	53	1.4 U	200	1.3 U	12	11	67	3.5 J	2.9 J
Phenanthrene	10,000,000	10,000,000	10,000,000	2200	2.5 J	89	4900	13000	180	1.9 U	520	1.8 U	16	13	110	2.9 J	2.1 U
Phenol	200,000	200,000	200,000	270 U	12 U	12 U	170 U	460 U	11 U	11 U	22 U	10 U	12 U	14 U	12 U	12 U	12 U
Pyrene	2,200,000	2,200,000	2,200,000	1900	4.3 J	130	12000	22000	58	1.7 U	750	1.6 U	8.2	2.8 J	48	1.9 U	1.9 U

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-23-6	SB-24-11.5	SB-24-1	SB-25-1	SB-25-5	SB-26-1	SB-26-9	SB-27-1	SB-27-8	SB-28-1	SB-28-5.5	SB-29-1	SB-29-7.5	SB-29-7.5D
Date		Surface Soil	Subsurface Soil	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)		(0-2')	(2-15')	6.5	11.5	1.0	1.0	5.0	1.0	9.0	1.0	8.0	1.0	5.5	1.0	7.5	7.5
Pesticides (µg/kg) ⁽⁶⁾																	
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	---	---	---	---	---	0.098 UF2FL	---	0.021 U	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	---	---	---	---	---	0.095 U^c	---	0.02 U	---	---
Aldrin	460	1,900	1,900	---	---	---	---	---	---	---	---	---	0.14 U	---	0.03 U	---	---
alpha-BHC	46	200	200	---	---	---	---	---	---	---	---	---	0.11 UF2FL	---	0.024 U	---	---
beta-BHC	210	880	880	---	---	---	---	---	---	---	---	---	0.13 UFL	---	0.027 U	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	0.12 UF2	---	0.025 U	---	---
delta-BHC	NE	NE	NE	---	---	---	---	---	---	---	---	---	0.15 UFL	---	0.031 U	---	---
Dieldrin	110	470	470	---	---	---	---	---	---	---	---	---	0.12 UFL^c	---	0.025 U	---	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	---	---	---	---	---	0.13 UFHFL	---	0.027 U	---	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	---	---	---	---	---	0.1 UFL	---	0.022 U	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	---	---	---	---	---	0.21 U^c	---	0.045 U	---	---
Endrin	5,500	5,500	5,500	---	---	---	---	---	---	---	---	---	0.088 UF2FL	---	0.018 U	---	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	---	---	---	---	---	0.12 UFL	---	0.025 U	---	---
Heptachlor	680	680	680	---	---	---	---	---	---	---	---	---	0.15 UFL	---	0.031 U	---	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	---	---	---	---	---	0.18 UFL^c	---	0.038 U	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	---	---	---	---	---	0.11 UF2FL	---	0.023 U	---	---
PCBs (µg/kg) ⁽⁸⁾																	
PCB-1248	9,300	46,000	67,000	4.3 U	4.8 U	4.7 U	4.5 U	4.5 U	4.6 U	4.3 U	4.4 U	4.1 U	4.6 U	5.4 U	4.7 U	4.7 U	4.8 U
PCB-1254	4,400	64,000	380,000	5.4 U	6.1 U	5.9 U	140	5.7 U	5.7 U	5.3 U	5.5 U	5.2 U	5.7 U	6.8 U	5.8 U	5.9 U	6 U
PCB-1260	9,300	46,000	630,000	5.1 U	5.7 U	5.6 U	5.3 U	5.4 U	5.4 U	5.1 U	5.2 U	4.9 U	5.4 U	6.4 U	5.5 U	5.6 U	5.7 U
Dioxins (ng/kg)																	
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1																	
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL																	
ERIE COKE SITE																	
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA																	
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-23-6	SB-24-11.5	SB-24-1	SB-25-1	SB-25-5	SB-26-1	SB-26-9	SB-27-1	SB-27-8	SB-28-1	SB-28-5.5	SB-29-1	SB-29-7.5	SB-29-7.5D
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/10/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)				6.5	11.5	1.0	1.0	5.0	1.0	9.0	1.0	8.0	1.0	5.5	1.0	7.5	7.5
Metals (mg/kg)																	
Aluminum	190,000	190,000	190,000	6700	11000	10000	13000	5400 B	990 B	48000 B	3900 B	36000 B	32000 B	11000 B	11000 B	56000 B	60000 B
Antimony	27	27	27	3.9 J	0.29 U	0.31 U	0.45 J	0.43 J	0.29 U	1.3 U	0.41 J	1.1 U	1.5 U	3.8 U	2.7 U	0.35 U	1.3 U
Arsenic	12	29	29	64	19	15	11	13	2.4	2.6 U	6	2.3 U	17	26	31	9.6	2.7 U
Barium	8,200	8,200	8,200	56	43	53	110	100	25	490	52	250	170	57	170	200	290
Beryllium	320	320	320	0.62	0.56	0.59	1.9	1.8	0.15 J	7.5	0.63	4.2	4.5	1.6	2.1	4.6	6.7
Cadmium	38	38	38	0.071 U	0.17 J	0.35 J	0.97	0.43 J	0.069 U	0.31 U	0.3 J	0.27 U	0.45 J	0.092 U	5.4	0.097 J	0.31 U
Calcium	NE	NE	NE	20000	2600	13000	49000	12000	1800	170000	11000	150000	120000	30000	55000	250000	290000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	42 B	16 B	12 B	23 B	12	2.9	11	16	3.2	19	36	41	3.6	2.6
Cobalt	45	130	130	10	11	11	6	5.9	1.5 J	3 U	3.8	2.6 U	5.6	9.6	9.2	4 U	3 U
Copper	7,200	43,000	43,000	150	31	31	63	53	9.7	6.3 U	31	5.7 U	35	25	72	6	6.5 U
Iron	150,000	190,000	190,000	190000 B	35000 B	31000 B	49000 B	28000 B	5100 B	940 B	26000 B	1200 B	150000 B	350000 B	260000 B	27000 B	2400 B
Lead	450	450	450	71	20	16	85	86	3.7	3.7 U	29	3.3 U	67	61	690	5 U	3.7 U
Magnesium	NE	NE	NE	2200	4600	8800	8800	2200	240 J	32000	2100	17000	21000	6400	7100	31000	43000
Manganese	2,000	2,000	2,000	960 B	300 B	510 B	1600 B	410 B	67 B	2800 B	550 B	2500 B	2100 B	3500 B	4900 B	3500 B	3700 B
Mercury	10	10	10	0.26	0.023	0.054	0.16	1.6	0.021 U	0.017 U	0.27	0.018 U	0.039	0.038	0.072	0.023 U	0.018 U
Nickel	650	650	650	44 B	30 B	29 B	20 B	25	2.5 J	2.1 U	17	1.9 U	13 J	12 J	28 J	3.1 J	2.2 U
Potassium	NE	NE	NE	2000	1300	1200	720	450 J	130 J	6600	420	2500	1400 J	580 J	640	870	1200 J
Selenium	26	26	26	1.9	0.45 U	0.48 U	1.2	2.7	1.4	5.4	0.99	5.4	4.8 J	5.8 U	4.2 U	6.6	8.7
Silver	84	84	84	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U	0.098 U	0.44 U	0.078 U	0.39 U	0.53 U	1.3 U	0.94 U	0.6 U	0.45 U
Sodium	NE	NE	NE	210 J	680	130 J	180 J	250 J	68 J	1300 J	150 J	570 J	640 J	190 J	160 J	1000	1400 J
Thallium	2.2	14	14	0.84 J	0.27 U	0.29 U	0.32 U	0.29 U	0.27 U	1.2 U	0.21 U	1.1 U	0.29 U	3.6 U	3.3 J	1.6 U	1.2 U
Vanadium	15	220	680	41	19	16	19	9	1.9 J	11 J	7.8	3 U	29	59 J	45	10	9.6 J
Zinc	12,000	12,000	12,000	81	110	93	200	82	9.4	5 U	110	4.5 U	560	290	3600	4.9	5.1 U

TABLE 1													
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL													
ERIE COKE SITE													
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA													
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-30-1	SB-30-12	SB-31-1	SB-31-7.5	SB-32-1	SB-32-11	SB-33-1	SB-33-14	SB-34-1	SB-34-14
Date		Surface Soil	Subsurface Soil	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	12.0	1.0	7.5	1.0	11.0	1.0	14.0	1.0	14.0
Volatile Organic Compounds (µg/kg) ⁽³⁾													
Acetone	3,100,000	8,800,000	8,800,000	4 U^c	4.4 U	4.7 U	4.3 U	5.1 U^c	4.5 U^c	4.4 U^c	4.7 U^c	4.7 U^c	5.2 U^c
Benzene	500	500	500	1.5 U	1.6 U	1.7 U	1.5 U	1.8 U	1.6 U	1.6 U	1.7 U	1.7 U	1.9 U
Carbon disulfide	150,000	620,000	620,000	4.1 U	4.5 U	4.9 U	4.4 U	5.2 U	4.6 U	4.5 U	4.8 U	4.9 U	5.3 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.5 U	2.7 U	2.9 U	2.6 U	3.1 U	2.7 U	2.7 U	2.9 U	2.9 U	3.2 U
Ethylbenzene	70,000	70,000	70,000	1.9 U	2.1 U	2.2 U	2 U	2.4 U	2.1 U	2.1 U	2.2 U	2.2 U	2.4 U
Methylcyclohexane	NE	NE	NE	2.5 U	2.7 U	2.9 U	2.6 U	3.1 U	2.8 U	2.7 U	2.9 U	2.9 U	3.2 U
Styrene	24,000	24,000	24,000	1.5 U	1.7 U	1.8 U	1.6 U	2 U	1.7 U	1.7 U	1.8 U	1.8 U	2 U
Toluene	100,000	100,000	100,000	1.5 U	1.6 U	1.7 U	1.6 U	1.9 U	1.7 U	1.6 U	1.7 U	1.7 U	1.9 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	7.4 U	8.1 U	8.7 U	7.9 U	9.4 U	8.3 U	8.1 U	8.6 U	8.7 U	9.5 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾													
1,1'-Biphenyl	370	1,500	1,500	22 J	14 U	15 U	13 U	60 U	14 U	140 J	590 U	440 U	42 J
2,4-Dimethylphenol	69,000	190,000	190,000	12 U	12 U	13 U	12 U	55 U	13 U	63 U	540 U	400 U	83
2-Methylnaphthalene	25,000	100,000	100,000	120	6.2 J	41	1.7 U	500	6.3 J	970	670	950	130
2-Methylphenol	170,000	490,000	490,000	10 U	11 U	11 U	10 U	47 U	11 U	54 U	460 U	340 U	410
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	13 U	13 U	14 U	13 U	58 U	13 U	66 U	560 U	420 U	16 U
4-Chloroaniline	420	1,800	1,800	9.4 U	9.7 U	11 U	9.4 U	43 U	9.9 U	49 U	420 U	320 U	12 U
Acenaphthene	2,600,000	4,700,000	4,700,000	14	2.1 U	8.2	2.1 U	22 J	2.2 U	80	92 U	69 U	8.9 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	370	12	18	1.6 U	52	1.7 U	120	70 U	130 J	39
Acetophenone	350,000	970,000	970,000	27 J	13 U	14 U	13 U	58 U	13 U	66 U	570 U	430 U	16 U
Anthracene	350,000	350,000	350,000	190	8.1	35	1.9 U	120	4.4 J	230	83 U	240	50
Benzaldehyde	NE	NE	NE	4.5 U	4.6 U	5 U	4.4 U	20 U	4.7 U	23 U	200 U	150 U	5.6 U
Benzo[a]anthracene	6,100	130,000	340,000	480	8.2	130	3.2 U	490	6.7 J	560	140 U	330	28
Benzo[a]pyrene	4,200	46,000	46,000	580	10	140	3.1 U	370	3.7 J	410	140 U	230 J	21
Benzo[b]fluoranthene	3,500	76,000	170,000	970	20	190	1.8 U	600	5.5 J	640	79 U	350	25
Benzo[g,h,i]perylene	180,000	180,000	180,000	540	17	120	1.5 U	340	2.7 J	420	69 U	190 J	66
Benzo[k]fluoranthene	3,500	76,000	610,000	280	7.8	72	2.1 U	180	2.3 U	240	96 U	120 J	16
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	38 U	40 U	43 U	38 U	180 U	40 U	200 U	1700 U	1300 U	48 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	25 U	25 U	28 U	25 U	110 U	26 U	130 U	1100 U	830 U	31 U
Carbazole	21,000	89,000	89,000	48	3.6 J	14	1.7 U	57	1.8 U	100	75 U	170 J	210
Chrysene	35,000	230,000	230,000	530	13	170	4 U	670	6.3 J	840	180 U	630	44
Dibenz(a,h)anthracene	1,000	22,000	270,000	190	4.8 U	44	4.6 U	140	4.8 U	150	200 U	150 U	7 J
Dibenzofuran	90,000	250,000	250,000	67	14 U	21 J	13 U	130 J	14 U	350	590 U	440 U	78
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	22 J	39	18 U	29 J	72 U	17 U	82 U	700 U	530 U	20 U
Fluoranthene	3,200,000	3,200,000	3,200,000	580	12	160	1.9 U	660	24	1200	84 U	790	52
Fluorene	2,800,000	3,800,000	3,800,000	21	1.5 U	11	1.4 U	30 J	1.9 J	210	88 J	210 J	21
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	510	14	110	3.6 U	290	3.8 U	360	160 U	130 J	25
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	11 U	11 U	12 U	11 U	48 U	11 U	55 U	470 U	350 U	860
Naphthalene	13,000	25,000	25,000	390	43	56	1.4 U	380	5.9 J	1100	250 J	2400	1600
Phenanthrene	10,000,000	10,000,000	10,000,000	260	14	150	1.9 U	640	20	1500	280 J	1500	110
Phenol	200,000	200,000	200,000	11 U	11 U	12 U	11 U	50 U	11 U	57 U	480 U	360 U	680
Pyrene	2,200,000	2,200,000	2,200,000	470	11	140	1.7 U	450	16	730	76 U	650	47

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SUMMARY OF DETECTED ANALYTICAL DATA - SOIL													
ERIE COKE SITE													
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA													
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-30-1	SB-30-12	SB-31-1	SB-31-7.5	SB-32-1	SB-32-11	SB-33-1	SB-33-14	SB-34-1	SB-34-14
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)				1.0	12.0	1.0	7.5	1.0	11.0	1.0	14.0	1.0	14.0
Pesticides (µg/kg) ⁽⁶⁾													
4,4'-DDD	30,000	120,000	120,000	---	---	0.021 U	---	---	---	0.096 U	---	---	---
4,4'-DDE	41,000	170,000	170,000	---	---	0.021 U	---	---	---	0.093 U	---	---	---
Aldrin	460	1,900	1,900	---	---	0.031 U	---	---	---	0.14 U	---	---	---
alpha-BHC	46	200	200	---	---	0.025 U	---	---	---	0.11 U	---	---	---
beta-BHC	210	880	880	---	---	0.028 U	---	---	---	0.13 U	---	---	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.025 U	---	---	---	0.11 U	---	---	---
delta-BHC	NE	NE	NE	---	---	0.032 U	---	---	---	0.14 U	---	---	---
Dieldrin	110	470	470	---	---	0.025 U	---	---	---	0.11 U	---	---	---
Endosulfan I	110,000	260,000	260,000	---	---	0.027 U	---	---	---	0.12 U	---	---	---
Endosulfan II	120,000	260,000	260,000	---	---	0.022 U	---	---	---	0.1 U	---	---	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	0.046 U	---	---	---	0.21 U	---	---	---
Endrin	5,500	5,500	5,500	---	---	0.019 U	---	---	---	0.086 U	---	---	---
gamma-BHC (Lindane)	72	72	72	---	---	0.026 U	---	---	---	0.12 U	---	---	---
Heptachlor	680	680	680	---	---	0.032 U	---	---	---	0.14 U	---	---	---
Methoxychlor	630,000	630,000	630,000	---	---	0.039 U	---	---	---	0.18 U	---	---	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	0.023 U	---	---	---	0.11 U	---	---	---
PCBs (µg/kg) ⁽⁸⁾													
PCB-1248	9,300	46,000	67,000	4.2 U	4.5 U	4.9 U	4.4 U	25 U	4.5 U	4.4 U	4.8 U	4.8 U	5.3 U
PCB-1254	4,400	64,000	380,000	5.2 U	5.6 U	6.1 U	5.5 U	31 U	5.7 U	5.5 U	6 U	6 U	6.6 U
PCB-1260	9,300	46,000	630,000	7.3 J	5.3 U	5.8 U	5.2 U	29 U	5.4 U	5.2 U	5.7 U	5.7 U	6.3 U
Dioxins (ng/kg)													
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	11 B	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	3.2 JB	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	0.18 JB	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	0.45 JB	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	1.8 JB	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	1 JIB	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	0.87 JB	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	0.65 JB	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	0.18 JIB	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	0.97 JIB	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	1.6 JIB	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	0.71 JB	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	1.2 JB	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	0.24 JB	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	1.6 B	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	66 B	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	3.5 JB	---	---	---

TABLE 1													
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ERIE COKE SITE													
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA													
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-30-1	SB-30-12	SB-31-1	SB-31-7.5	SB-32-1	SB-32-11	SB-33-1	SB-33-14	SB-34-1	SB-34-14
Date		Surface Soil	Subsurface Soil	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022	10/11/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	12.0	1.0	7.5	1.0	11.0	1.0	14.0	1.0	14.0
Metals (mg/kg)													
Aluminum	190,000	190,000	190,000	8700 B	47000 B	22000 B	40000 B	7200	18000	560	360	1000	2900
Antimony	27	27	27	0.6 J	1.2 U	1.7 U	1 U	0.43 J	1.2 U	0.25 U	0.29 U	0.71 J	2.2 J
Arsenic	12	29	29	14	5.9	15	2.1 U	5.4	2.5 U	1.6	1.9	3.9	12
Barium	8,200	8,200	8,200	130	410	160	830	130	180	14 J	13 J	28	49
Beryllium	320	320	320	0.92	9.4	3.6	6	0.95	3.7	0.27 J	0.23 J	0.39 J	0.54
Cadmium	38	38	38	0.23 J	0.35 J	0.63	0.25 U	0.38 J	0.29 U	0.061 U	0.071 U	2.2	0.44 J
Calcium	NE	NE	NE	36000	220000	110000	200000	21000	80000	730	160 J	3500	11000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	16	8.1	15	2.2	5.4	1.8 U	2.4	1.2	4.3	11
Cobalt	45	130	130	7.9	2.7 U	5.2 J	2.4 U	2.4 J	0.55 U	1.4 J	1.9 J	2.6 J	3.6 J
Copper	7,200	43,000	43,000	62	12	25	5.1 U	20	6 U	20	4.7	11	11
Iron	150,000	190,000	190,000	33000 B	12000 B	96000 B	990 B	10000	4300	3000	1000	6700	82000
Lead	450	450	450	98	6.2	75	2.9 U	26	0.69 U	4	1.7	71	85
Magnesium	NE	NE	NE	12000	30000	19000	35000	3000	14000	160 J	61 J	520 J	1800
Manganese	2,000	2,000	2,000	650 B	4600 B	2200 B	3000 B	700	810	32	10	100	950
Mercury	10	10	10	0.43	0.019 U	0.024 U	0.019 U	0.072	0.021 U	0.75	0.04	0.024 J	0.076
Nickel	650	650	650	27	4.8 J	17 J	1.7 U	7.8	1 J	2.8 J	3.4 J	5.8	5.4 J
Potassium	NE	NE	NE	850	3200	850	3900	590	610 J	71 U	82 U	150 J	180 J
Selenium	26	26	26	1.7	7.6	3.6	5.7	1	2.9 J	0.4 J	0.81 J	0.53 U	2.5
Silver	84	84	84	0.11 U	0.4 U	0.12 U	0.35 U	0.11 U	0.41 U	0.087 U	0.1 U	0.12 U	0.11 J
Sodium	NE	NE	NE	190 J	2100	320 J	1500 J	140 J	320 J	43 U	50 U	59 U	60 J
Thallium	2.2	14	14	0.31 U	1.1 U	0.32 U	0.96 U	0.3 U	0.22 U	0.24 U	0.27 U	0.33 U	0.65 J
Vanadium	15	220	680	14	6 J	37	4.9 J	6	7.1 J	3.7 J	3.5 J	4.8 J	21 J
Zinc	12,000	12,000	12,000	150	27	390	4 U	84	4.7 U	14	5.9	130	530

TABLE 1											
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL											
ERIE COKE SITE											
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA											
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-35-1	SB-35-5	SB-36-1	SB-36-12	SB-40-1	SB-40-13.5	SB-41-1	SB-41-9
Date		Surface Soil	Subsurface Soil	10/11/2022	10/11/2022	10/12/2022	10/12/2022	10/14/2022	10/14/2022	10/17/2022	10/17/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	5.0	1.0	12.0	1.0	13.5	1.0	9.0
Volatile Organic Compounds (µg/kg) ⁽³⁾											
Acetone	3,100,000	8,800,000	8,800,000	4.6 U^c	4.7 U^c	3.8 UB^c	3.5 UB^c	3.9 U^c	4.5 U	4.4 U^c	4.2 U^c
Benzene	500	500	500	1.7 U	1.7 U	1.4 U	1.3 U	1.4 U	1.6 U	1.6 U	1.5 U
Carbon disulfide	150,000	620,000	620,000	4.8 U	4.8 U	3.8 U	3.6 U	4 U	4.6 U	4.5 U	4.3 U
Cyclohexane	1,700,000	6,900,000	6,900,000	2.8 U	2.9 U	2.3 U	2.1 U	2.4 U	2.7 U	2.7 U	2.6 U
Ethylbenzene	70,000	70,000	70,000	2.2 U	2.2 U	1.8 U	1.6 U	1.9 U	2.1 U*3	2.1 U	2 U
Methylcyclohexane	NE	NE	NE	2.9 U	2.9 U	2.3 U	2.1 U	2.4 U	2.8 U	2.7 U	2.6 U
Styrene	24,000	24,000	24,000	1.8 U	1.8 U	1.4 U	1.3 U	1.5 U	1.7 U*3	1.7 U	1.6 U
Toluene	100,000	100,000	100,000	1.7 U	1.7 U	1.4 U	1.3 U	1.4 U	1.6 U*3	1.6 U	1.5 U
Xylenes, Total	1,000,000	1,000,000	1,000,000	8.6 U	8.6 U	6.9 U	6.4 U	7.2 U	8.2 U*3	8.1 U	7.7 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾											
1,1'-Biphenyl	370	1,500	1,500	150 J	440 U	27 J	370 U	14 U	14 U	13 U	15 U
2,4-Dimethylphenol	69,000	190,000	190,000	66 U	410 U	12 U	340 U	13 U	13 U	12 U	14 U
2-Methylnaphthalene	25,000	100,000	100,000	800	1800	230	630	21	1.8 U	2.7 J	8 J
2-Methylphenol	170,000	490,000	490,000	57 U	350 U	9.9 U	290 U	11 U	11 U	10 U	12 U
4-Chloro-3-methylphenol	720,000	2,000,000	2,000,000	69 U	430 U	12 U	360 U	13 U	13 U	13 U	14 U
4-Chloroaniline	420	1,800	1,800	52 U	320 U	9.1 U	270 U	10 U	9.9 U	9.6 U	11 U
Acenaphthene	2,600,000	4,700,000	4,700,000	95	70 U	7.9	1000	4.3 J	2.2 U	2.1 U	9.4
Acenaphthylene	2,400,000	6,600,000	6,600,000	85	53 U	45	250	44	1.9 J	18	9.6
Acetophenone	350,000	970,000	970,000	70 U	430 U	12 U	360 U	14 U	13 U	13 U	15 U
Anthracene	350,000	350,000	350,000	200	63 U	70	1800	52	2 U	13	22
Benzaldehyde	NE	NE	NE	25 U	150 U	4.3 U	130 U	4.7 U	4.7 U	4.5 U	5.1 U
Benzo[a]anthracene	6,100	130,000	340,000	360	110 U	370	4700	100	3.4 U	52	64
Benzo[a]pyrene	4,200	46,000	46,000	250	110 U	340	2600	100	3.3 U	58	55
Benzo[b]fluoranthene	3,500	76,000	170,000	380	60 U	420	2500	140	1.9 U	71	57
Benzo[g,h,i]perylene	180,000	180,000	180,000	220	52 U	330	1600	100	1.6 U	67	46
Benzo[k]fluoranthene	3,500	76,000	610,000	140	73 U	150	820	48	2.3 U	25	19
Bis(2-ethylhexyl) phthalate	130,000	130,000	130,000	210 U	1300 U	37 U	1100 U	41 U	40 U	39 U	44 U
Butyl benzyl phthalate	2,900,000	10,000,000	10,000,000	140 U	830 U	24 U	700 U	26 U	26 U	25 U^c	28 U
Carbazole	21,000	89,000	89,000	72	57 U	36	310	26	1.8 U	4.1 J	4.6 J
Chrysene	35,000	230,000	230,000	530	130 U	390	4800	120	4.2 U	53	64
Dibenz(a,h)anthracene	1,000	22,000	270,000	62	160 U	110	670	28	4.8 U	18	13
Dibenzofuran	90,000	250,000	250,000	170 J	450 U	76	380 U	19 J	14 U	13 U	15 U
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	87 U	530 U	54	450 U	41	16 U	16 U	18 U
Fluoranthene	3,200,000	3,200,000	3,200,000	570	64 U	420	5800	240	2 U	79	110
Fluorene	2,800,000	3,800,000	3,800,000	160	110 J	15	860	22	1.5 U	2.9 J	7.5 J
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	140	120 U	300	1300	92	3.7 U	48	40
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	73 J	360 U	10 U	300 U	11 U	11 U	11 U	27 J
Naphthalene	13,000	25,000	25,000	900	1100	220	1200	38	3.9 J	4.3 J	13
Phenanthrene	10,000,000	10,000,000	10,000,000	960	490	390	11000	190	2 J	25	56
Phenol	200,000	200,000	200,000	60 U	370 U	11 U	310 U	12 U	11 U	11 U	12 U
Pyrene	2,200,000	2,200,000	2,200,000	480	86 J	420	12000	160	1.8 U	65	96

TABLE 1											
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL											
ERIE COKE SITE											
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA											
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-35-1	SB-35-5	SB-36-1	SB-36-12	SB-40-1	SB-40-13.5	SB-41-1	SB-41-9
Date		Surface Soil	Subsurface Soil	10/11/2022	10/11/2022	10/12/2022	10/12/2022	10/14/2022	10/14/2022	10/17/2022	10/17/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	5.0	1.0	12.0	1.0	13.5	1.0	9.0
Pesticides (µg/kg) ⁽⁶⁾											
4,4'-DDD	30,000	120,000	120,000	---	---	---	---	0.1 U	---	2.3 p	---
4,4'-DDE	41,000	170,000	170,000	---	---	---	---	0.59 p^c	---	1.6 ^c	---
Aldrin	460	1,900	1,900	---	---	---	---	0.15 U	---	1	---
alpha-BHC	46	200	200	---	---	---	---	0.12 U	---	1.1	---
beta-BHC	210	880	880	---	---	---	---	0.13 U	---	1.1	---
cis-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.12 U	---	0.23 U	---
delta-BHC	NE	NE	NE	---	---	---	---	0.15 U	---	0.92 p	---
Dieldrin	110	470	470	---	---	---	---	0.12 U	---	2.2 ^c	---
Endosulfan I	110,000	260,000	260,000	---	---	---	---	0.13 U	---	1.3	---
Endosulfan II	120,000	260,000	260,000	---	---	---	---	0.11 U	---	1.8 p	---
Endosulfan sulfate	70,000	70,000	70,000	---	---	---	---	0.22 U	---	2.4 p	---
Endrin	5,500	5,500	5,500	---	---	---	---	0.091 U	---	1.6 p	---
gamma-BHC (Lindane)	72	72	72	---	---	---	---	0.13 U	---	1.1	---
Heptachlor	680	680	680	---	---	---	---	0.15 U	---	0.28 U	---
Methoxychlor	630,000	630,000	630,000	---	---	---	---	0.19 U	---	2.5 p	---
trans-Chlordane	49 ⁽⁷⁾	49 ⁽⁷⁾	49 ⁽⁷⁾	---	---	---	---	0.11 U	---	0.21 U	---
PCBs (µg/kg) ⁽⁸⁾											
PCB-1248	9,300	46,000	67,000	4.7 U	4.8 U	4.3 U	4.1 U	4.6 U	4.6 U	4.4 U	4.9 U
PCB-1254	4,400	64,000	380,000	5.9 U	6.1 U	5.3 U	5.2 U	5.8 U	5.7 U	5.5 U	6.1 U
PCB-1260	9,300	46,000	630,000	5.6 U	5.7 U	5.1 U	4.9 U	5.5 U	5.4 U	8.9 J	5.8 U
Dioxins (ng/kg)											
1,2,3,4,6,7,8-HpCDD	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,4,6,7,8-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,4,7,8,9-HpCDF	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,4,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDD	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,7,8,9-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDD	NE	NE	NE	---	---	---	---	---	---	---	---
1,2,3,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---
2,3,4,6,7,8-HxCDF	NE	NE	NE	---	---	---	---	---	---	---	---
2,3,4,7,8-PeCDF	NE	NE	NE	---	---	---	---	---	---	---	---
2,3,7,8-TCDD	140	700	32,000	---	---	---	---	---	---	---	---
2,3,7,8-TCDF	NE	NE	NE	---	---	---	---	---	---	---	---
OCDD	NE	NE	NE	---	---	---	---	---	---	---	---
OCDF	NE	NE	NE	---	---	---	---	---	---	---	---

TABLE 1											
SUMMARY OF DETECTED ANALYTICAL DATA - SOIL											
ERIE COKE SITE											
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA											
Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		SB-35-1	SB-35-5	SB-36-1	SB-36-12	SB-40-1	SB-40-13.5	SB-41-1	SB-41-9
Date		Surface Soil	Subsurface Soil	10/11/2022	10/11/2022	10/12/2022	10/12/2022	10/14/2022	10/14/2022	10/17/2022	10/17/2022
Depth (ft bgs)		(0-2')	(2-15')	1.0	5.0	1.0	12.0	1.0	13.5	1.0	9.0
Metals (mg/kg)											
Aluminum	190,000	190,000	190,000	570	340	5600	5600	2500	15000	2400	2600
Antimony	27	27	27	0.31 U	0.34 U	0.27 U	0.19 U	0.24 J	0.32 U	0.26 U	0.26 U
Arsenic	12	29	29	0.93 J	2.4	4.3	2	4.3	1.7	3	3.4
Barium	8,200	8,200	8,200	10 J	20 J	63	76	20	200	12 J	14 J
Beryllium	320	320	320	0.13 J	0.58	0.87	0.81	0.19 J	1.8	0.11 J	0.25 J
Cadmium	38	38	38	0.076 U	0.083 U	0.099 J	0.046 U	0.17 J	0.079 U	0.23 J	0.062 U
Calcium	NE	NE	NE	450 J	210 J	21000	24000	45000	88000	4000	6000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	4.4	1.8	3.8	2.7	5.8	1.9	5	3.6
Cobalt	45	130	130	0.74 J	1.4 J	1.3 J	0.73 J	2.9 J	0.75 U	3.2 J	3 J
Copper	7,200	43,000	43,000	6.7	4.8	14	2.8	9.5	2.7	6.2	6.5
Iron	150,000	190,000	190,000	1500	4200	22000	10000	18000	12000	7400	6700
Lead	450	450	450	2	1.3	14	2.2	13	0.93 U	7.3	9.6
Magnesium	NE	NE	NE	120 J	62 U	3000	4600	21000	14000	2000	1800
Manganese	2,000	2,000	2,000	15	13	550	420	350	1600	120	130
Mercury	10	10	10	0.025 U	0.023 J	0.35	0.016 U	0.03	0.017 U	0.061	0.12
Nickel	650	650	650	2.2 J	2.5 J	3.2 J	1.8 J	8	3 J	6.8	5.6
Potassium	NE	NE	NE	88 U	96 U	390 J	540	370 J	890	320 J	270 J
Selenium	26	26	26	0.56 J	1.3	0.91	0.51 J	0.44 J	1.1	0.4 U	0.39 U
Silver	84	84	84	0.11 U	0.12 U	0.094 U	0.065 U	0.08 U	0.11 U	0.089 U	0.088 U
Sodium	NE	NE	NE	53 U	58 U	140 J	120 J	48 J	340 J	44 U	58 J
Thallium	2.2	14	14	0.29 U	0.32 U	0.26 U	0.18 U	0.22 U	0.3 U	0.24 U	0.24 U
Vanadium	15	220	680	2.7 J	3.6 J	5.8	3.7	5.9	4.3 J	6.4	4 J
Zinc	12,000	12,000	12,000	7	3	58	21	48	1.3 U	31	33

TABLE 1

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Notes/Qualifiers

- 4 - the analyte present in sample is greater than 4x the MS concentration; control limits are not applicable
- - Not Analyzed
- % - percent
- *+ - LCS and/or LCSD is outside acceptance limits; biased high
- *1 - LCS/LCSD RPD exceeds control limits
- *3 - ISTD response or retention time is outside acceptance limits
- ^c - CCV recovery is outside acceptance limits
- µg/kg - microgram per kilogram
- B - analyte was found in the blank
- CCV - Continuing Calibration Verification
- EMPC - Estimated Maximum Possible Concentration
- F2 - MS/MSD RPD exceeds control limits
- FH - MS and/or MSD recovery above control limits
- FL - MS and/or MSD recovery below control limits
- ft bgs - ft below ground surface
- H - sample was prepped or analyzed beyond specified holding times
- I - value is EMPC

Bold	- Concentration is detected
Shaded	- Detected concentration exceeds the PADEP Residential Soil MSC
Boxed	- Detection concetnration exceeds the PADEP Nonresidential Soil MSC

- ISTD - Internal Standard Spiking Solution
- J - result is less than the RL but greater than or equal to the MDL; estimated
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MDL - Method Detection Limit
- mg/kg - milligram per kilogram
- MS - Matrix Spike
- MSC - Medium-Specific Concentration
- MSD - Matrix Spike Duplicate
- NE - Not Established
- ng/kg - nanogram per kilogram
- PADEP - Pennsylvania Department of Environmental Protection
- PCB - Polychlorinated Biphenyl
- RL - Reporting Limit
- RPD - Relative Percent Difference
- TDS - Total Dissolved Solids
- U - Not Detected

⁽¹⁾ - PADEP Residential MSCs are determined by the lower of the residential Direct Contact and residential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽²⁾ - PADEP Nonresidential MSCs are determined by the lower of the nonresidential Direct Contact and nonresidential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽³⁾ - 39 additional VOCs were analyzed for but not detected

⁽⁴⁾ - 34 additional SVOCs were analyed for but not detected

⁽⁵⁾ - 4-Methylphenol used as a surrogate

⁽⁶⁾ - 5 additional pesticides were analyzed for but not detected

⁽⁷⁾ - Chlordane used as a surrogate

⁽⁸⁾ - 4 additional PCBs were analyzed for but not detected

⁽⁹⁾ - Chromium VI used as a surrogate

* - Pesticides for this sample were collected 10/18/2022

TABLE 2

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL (COKE)

ERIE COKE SITE

CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP	PADEP Nonresidential Soil MSCs ⁽²⁾		COKE-SS01*	COKE-SS/SB01-7	COKE-SS/SB01-18	COKE-SS02	COKE-SS/SB02-13
Date	Residential Soil	Surface Soil	Subsurface Soil	9/15/2022	9/28/2022	9/28/2022	9/15/2022	9/28/2022
Depth Range (ft bgs)	MSCs ⁽¹⁾	(0-2')	(2-15')	1.0	7.0	1.0	1.0	13.0
Volatile Organic Compounds (µg/kg) ⁽³⁾								
Benzene	500	500	500	1.5 U	19000	1.6 U	1.5 U	7.4
Methyl acetate	3,500,000	9,700,000	9,700,000	7.9 U	1100 J	8.2 U^c	7.8 U	8.2 U^c
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾								
1,1'-Biphenyl	370	1,500	1,500	46 J	940 J	16 U	50 J	15 U
2-Methylnaphthalene	25,000	100,000	100,000	340	1200	2.2 J	270	3.5 J
Acenaphthene	2,600,000	4,700,000	4,700,000	42	3900	2.4 U	40	7.7 J
Acenaphthylene	2,400,000	6,600,000	6,600,000	120	410	1.9 U	170	3.8 J
Acetophenone	350,000	970,000	970,000	39 U	690 U	15 U	38 J	14 U
Anthracene	350,000	350,000	350,000	230	3300	3.4 J	250	6.7 J
Benzaldehyde	NE	NE	NE	36 J	240 U	5.3 U	9.1 U	5 U
Benzo[a]anthracene	6,100	130,000	340,000	660	1200	6.1 J	850	13
Benzo[a]pyrene	4,200	46,000	46,000	510	1100	4.4 J	650	9
Benzo[b]fluoranthene	3,500	76,000	170,000	900	800	3.8 J	1200	10
Benzo[g,h,i]perylene	180,000	180,000	180,000	550	1400	1.8 U	780	7 J
Benzo[k]fluoranthene	3,500	76,000	610,000	250	290 J	2.5 U	280	2.6 J
Carbazole	21,000	89,000	89,000	67	3600	4.4 J	73	1.9 U
Chrysene	35,000	230,000	230,000	730	1100	4.8 J	970	11
Dibenz(a,h)anthracene	1,000	22,000	270,000	190	250 U	5.4 U	260	5.2 U
Dibenzofuran	90,000	250,000	250,000	190	8000	16 U	110	15 U
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	160	850 U	19 U	230	69
Fluoranthene	3,200,000	3,200,000	3,200,000	720	4500	8.2 J	920	22
Fluorene	2,800,000	3,800,000	3,800,000	60	11000	2.6 J	73	5.7 J
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	470	530	4.2 U	640	6.1 J
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	32 U	570 U	12 U	41 J	12 U
Naphthalene	13,000	25,000	25,000	200	190 J	21	300	39
Phenanthrene	10,000,000	10,000,000	10,000,000	970	21000	7.7 J	960	23
Pyrene	2,200,000	2,200,000	2,200,000	900	4600	9.9	1300	28

Pesticides (µg/kg) ⁽⁶⁾

None Detected

TABLE 2

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL (COKE)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Soil MSCs ⁽²⁾		COKE-SS01*	COKE-SS/SB01-7	COKE-SS/SB01-18	COKE-SS02	COKE-SS/SB02-13
Date		Surface Soil (0-2')	Subsurface Soil (2-15')	9/15/2022	9/28/2022	9/28/2022	9/15/2022	9/28/2022
Depth Range (ft bgs)				1.0	7.0	1.0	1.0	13.0
PCBs (µg/kg) ⁽⁷⁾								
None Detected								
Metals (mg/kg) ⁽⁸⁾								
Aluminum	190,000	190,000	190,000	1500	12000	9100	1000	9100
Antimony	27	27	27	0.78 J	0.9 J	0.36 U	0.25 U	0.3 U
Arsenic	12	29	29	4.9	10	3.7	2.5	4.6
Barium	8,200	8,200	8,200	35	100	43	22	72
Beryllium	320	320	320	0.29 J	0.23 J	1.4	0.21 J	1.2
Cadmium	38	38	38	0.24 J	3.5	0.087 U	0.061 U	0.072 U
Calcium	NE	NE	NE	64000	17000	40000	1400	34000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	6.2	100	2.8	3.4	4.3
Cobalt	45	130	130	2.9 J	18	3.1 J	1.6 J	3.9 J
Copper	7,200	43,000	43,000	21	140 B	4	11	5.4
Iron	150,000	190,000	190,000	15000	60000 B	6600 B	6100	9400 B
Lead	450	450	450	16	280	4.3	6	8.1
Magnesium	NE	NE	NE	11000	11000	7100	350 J	7000
Manganese	2,000	2,000	2,000	1900	980 B	400 B	170	430 B
Mercury	10	10	10	0.029 JFHF2	0.12	0.015 U	0.034 J	0.022 U
Nickel	650	650	650	8.8	53	5.5	3.2 J	6.9
Potassium	NE	NE	NE	180 J	940	380 J	160 J	460 J
Selenium	26	26	26	0.58 J	0.63 J	0.67 J	0.46 J	0.57 J
Sodium	NE	NE	NE	79 J	92 J	160 J	46 J	180 J
Vanadium	15	220	680	6	33	4.5 J	4.6	7
Zinc	12,000	12,000	12,000	41	92	19	16	30

TABLE 2

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL (COKE)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP	PADEP Nonresidential Soil MSCs ⁽²⁾		COKE-SS03	COKE-SS03D	COKE-SB03-5.5D	COKE-SB03-6.5
Date	Residential Soil	Surface Soil	Subsurface Soil	9/15/2022	9/15/2022	10/11/2022	10/11/2022
Depth Range (ft bgs)	MSCs ⁽¹⁾	(0-2')	(2-15')	1.0	1.0	5.5	6.5
Volatile Organic Compounds (µg/kg) ⁽³⁾							
Benzene	500	500	500	1.5 U	1.6 U	1.6 U	1.6 U
Methyl acetate	3,500,000	9,700,000	9,700,000	7.9 U	8.2 U	8.3 U	8.2 U
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾							
1,1'-Biphenyl	370	1,500	1,500	280 J	280 J	13 U	13 U
2-Methylnaphthalene	25,000	100,000	100,000	1000	900	13	18
Acenaphthene	2,600,000	4,700,000	4,700,000	130	21 U	2.1 U	2.1 U
Acenaphthylene	2,400,000	6,600,000	6,600,000	1700	2500	1.6 J	3.5 J
Acetophenone	350,000	970,000	970,000	1200	960	13 U	13 U
Anthracene	350,000	350,000	350,000	1500	2200	1.9 U	1.9 U
Benzaldehyde	NE	NE	NE	44 U	46 U	4.5 U	4.5 U
Benzo[a]anthracene	6,100	130,000	340,000	5600	6500	3.3 U	5.1 J
Benzo[a]pyrene	4,200	46,000	46,000	4500	5800	3.2 U	3.9 J
Benzo[b]fluoranthene	3,500	76,000	170,000	8000	10000	3.4 J	7.1 J
Benzo[g,h,i]perylene	180,000	180,000	180,000	6200	7700	2.6 J	3.8 J
Benzo[k]fluoranthene	3,500	76,000	610,000	2600	2900	2.2 U	2.2 U
Carbazole	21,000	89,000	89,000	670	840	1.7 U	1.7 U
Chrysene	35,000	230,000	230,000	5400	6400	4.2 J	6.2 J
Dibenz(a,h)anthracene	1,000	22,000	270,000	2100	2700	4.7 U	4.7 U
Dibenzofuran	90,000	250,000	250,000	1000	1200	13 U	13 U
Di-n-butyl phthalate	1,400,000	4,000,000	4,000,000	230 J	490	20 J	45
Fluoranthene	3,200,000	3,200,000	3,200,000	6000	7700	2.5 J	5.7 J
Fluorene	2,800,000	3,800,000	3,800,000	260	350	1.4 U	1.4 U
Indeno[1,2,3-cd]pyrene	3,500	76,000	18,000,000	6000	7800	3.6 U	3.6 U
Methylphenol, 3 & 4	17 ⁽⁵⁾	49 ⁽⁵⁾	49 ⁽⁵⁾	100 J	110 J	11 U	11 U
Naphthalene	13,000	25,000	25,000	2900	2100	20	24
Phenanthrene	10,000,000	10,000,000	10,000,000	4900	6800	7.9	12
Pyrene	2,200,000	2,200,000	2,200,000	7200	8500	2.9 J	4.8 J

Pesticides (µg/kg) ⁽⁶⁾

None Detected

TABLE 2

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL (COKE)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP	PADEP Nonresidential Soil MSCs ⁽²⁾		COKE-SS03	COKE-SS03D	COKE-SB03-5.5D	COKE-SB03-6.5
Date	Residential Soil	Surface Soil	Subsurface Soil	9/15/2022	9/15/2022	10/11/2022	10/11/2022
Depth Range (ft bgs)	MSCs ⁽¹⁾	(0-2')	(2-15')	1.0	1.0	5.5	6.5

PCBs (µg/kg) ⁽⁷⁾*None Detected***Metals (mg/kg) ⁽⁸⁾**

Aluminum	190,000	190,000	190,000	6900	8000	56000 B	59000 B
Antimony	27	27	27	0.25 U	0.19 U	1.6 U	1.6 U
Arsenic	12	29	29	4.9	4.9	5.1 J	6.2
Barium	8,200	8,200	8,200	88	86	290	300
Beryllium	320	320	320	1.4	1.6	10	10
Cadmium	38	38	38	0.23 J	0.24 J	0.39 U	0.38 U
Calcium	NE	NE	NE	21000	26000	200000	220000
Chromium	37 ⁽⁹⁾	180 ⁽⁹⁾	190 ⁽⁹⁾	11	16	5.2	7.9
Cobalt	45	130	130	3 J	2.5 J	3.7 U	3.6 U
Copper	7,200	43,000	43,000	25	32	9.6 J	12 J
Iron	150,000	190,000	190,000	23000	19000	14000 B	34000 B
Lead	450	450	450	20	21	7.7	5.8
Magnesium	NE	NE	NE	3800	4400	38000	40000
Manganese	2,000	2,000	2,000	1800	770	2200 B	2500 B
Mercury	10	10	10	0.77	0.05	0.021 U	0.016 U
Nickel	650	650	650	12	24	3.1 J	5.4 J
Potassium	NE	NE	NE	400 J	410	4300	4700
Selenium	26	26	26	0.42 J	0.87	6.9	6.5
Sodium	NE	NE	NE	250 J	300 J	1300 J	1400 J
Vanadium	15	220	680	6.5	5.2	10 J	18 J
Zinc	12,000	12,000	12,000	56	53	33	26

TABLE 2

SUMMARY OF DETECTED ANALYTICAL DATA - SOIL (COKE)
 ERIE COKE SITE
 CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Notes/Qualifiers:

*1 - LCS/LCSD RPD exceeds control limits	MS - Matrix Spike
^c - CCV recovery is outside acceptance limits	MSC - Medium-Specific Concentration
µg/kg - microgram per kilogram	MSD - Matrix Spike Duplicate
B - analyte was found in the blank	NE - Not Established
CCV - Continuing Calibration Verification	PADEP - Pennsylvania Department of Environmental Protection
F2 - MS/MSD RPD exceeds control limits	PCB - Polychlorinated Biphenyl
FH - MS and/or MSD recovery above control limits	RL - Reporting Limit
ft bgs - ft below ground surface	RPD - Relative Percent Difference
J - result is less than the RL but greater than or equal to the MDL; estimated	SVOCs - Semi Volatile Organic Compounds
LCS - Laboratory Control Sample	TDS - Total Dissolved Solids
LCSD - Laboratory Control Sample Duplicate	U - Not Detected
MDL - Method Detection Limit	VOCs - Volatile Organic Compounds
mg/kg - milligram per kilogram	

Bold - Concentration is detected

Shaded - Detected concentration exceeds the PADEP Residential Soil MSC

Boxed - Detected concentration exceeds the PADEP Nonresidential Soil MSC

- (1) - PADEP Residential MSCs are determined by the lower of the residential Direct Contact and residential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.
- (2) - PADEP Nonresidential MSCs are determined by the lower of the nonresidential Direct Contact and nonresidential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.
- (3) - 45 additional VOCs were analyzed for but not detected
- (4) - 41 additional SVOCs were analyzed for but not detected
- (5) - 4-Methylphenol used as a surrogate
- (6) - 21 pesticides were analyzed for but not detected
- (7) - 7 PCBs were analyzed for but not detected
- (8) - Silver and thallium were also analyzed for but not detected
- (9) - Chromium VI used as a surrogate

* - Pesticides for this sample were collected 10/18/2022

TABLE 3

SUMMARY OF DETECTED ANALYTICAL RESULTS - SOIL (MS)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Surface Soil MSCs ⁽²⁾	MS-1 9/14/2022	MS-2 9/14/2022	MS-3 9/14/2022
Sample Date					
Sample Depth (ft bgs)			1.0	1.0	1.0
Volatile Organic Compounds (µg/kg) ⁽³⁾					
None Detected					
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾					
2-Methylnaphthalene	25,000	100,000	1.7 U	12	1.7 U
Acenaphthene	2,600,000	4,700,000	2 U	3.4 J	2 U
Acenaphthylene	2,400,000	6,600,000	1.5 U	4 J	1.5 U
Anthracene	350,000	350,000	2.7 J	14	2.4 J
Benzo[a]anthracene	6,100	130,000	8.3	40	9.3
Benzo[a]pyrene	4,200	46,000	6 J	41	11
Benzo[b]fluoranthene	3,500	76,000	8	51	15
Benzo[g,h,i]perylene	180,000	180,000	1.5 U	35	9.1
Benzo[k]fluoranthene	3,500	76,000	3 J	24	6 J
Butyl benzyl phthalate	2,900,000	10,000,000	24 U	23 U	24 J
Carbazole	21,000	89,000	1.6 U	9.5	1.6 U
Chrysene	35,000	230,000	9.4	58	14
Dibenz(a,h)anthracene	1,000	22,000	4.4 U	9.8	4.4 U
Di-n-butyl phthalate	1,400,000	4,000,000	70	76	37
Fluoranthene	3,200,000	3,200,000	20	80	22
Indeno[1,2,3-cd]pyrene	3,500	76,000	3.5 U	31	9.5
Naphthalene	13,000	25,000	6.8 J	28	1.4 U
Phenanthrene	10,000,000	10,000,000	19	68	13
Pyrene	2,200,000	2,200,000	14	55	17
PCBs (µg/kg) ⁽⁵⁾					
None Detected					
Metals (mg/kg) ⁽⁶⁾					
Aluminum	190,000	190,000	1000	16000	12000
Arsenic	12	29	9.4	1.2	1.8
Barium	8,200	8,200	7.2 J	150	130
Beryllium	320	320	0.1 J	4.2	1.7
Calcium	NE	NE	53000	77000	51000
Chromium	37 ⁽⁷⁾	180 ⁽⁷⁾	25	1.2	1.8
Cobalt	45	130	3.7 J	0.61 U	0.64 U
Copper	7,200	43,000	24	2 J	1.9 J
Iron	150,000	190,000	99000	720	10000
Magnesium	NE	NE	38000	13000	7200
Manganese	2,000	2,000	1800	710	900
Nickel	650	650	12 J	0.83 J	0.94 J
Potassium	NE	NE	77 U	1000 J	980
Selenium	26	26	1.2 J	1.4	0.78 J^1+
Sodium	NE	NE	46 U	300 J	230 J
Thallium	2	14	0.52 J	0.25 U	0.26 U
Vanadium	15	220	21 J	4 J	2.8 J
Zinc	12,000	12,000	4	2.7	2.3

TABLE 3

**SUMMARY OF DETECTED ANALYTICAL RESULTS - SOIL (MS)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA**

Notes/Qualifiers:

^1+ - ICV is outside acceptance limits; high biased

^c - CCV recovery is outside acceptance limits

µg/kg - microgram per kilogram

B - analyte was found in the blank

CCV - Continuing Calibration Verification

F2 - MS/MSD RPD exceeds control limits

ft bgs - ft below ground surface

FL - MS and/or MSD recovery below control limits

ICV - Initial Calibration Verification

J - result is less than the RL but greater than or equal to the MDL; estimated

MDL - Method Detection Limit

mg/kg - milligram per kilogram

MS (Sample ID) - Material Sample

MS - Matrix Spike

MSC - Medium-Specific Concentration

MSD - Matrix Spike Duplicate

NE - Not Established

PADEP - Pennsylvania Department of Environmental Protection

PCB - Polychlorinated Biphenyl

RL - Reporting Limit

RPD - Relative Percent Difference

SVOCs - Semi Volatile Organic Compounds

U - Not Detected

VOCs - Volatile Organic Compounds

Bold - Concentration is detected

Shaded - Detected concentration exceeds the PADEP Residential Soil MSC

Boxed - Detected concentration exceeds the PADEP Nonresidential Soil MSC

⁽¹⁾ - PADEP Residential MSCs are determined by the lower of the residential Direct Contact and residential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽²⁾ - PADEP Nonresidential MSCs are determined by the lower of the nonresidential Direct Contact and nonresidential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽³⁾ - 48 additional VOCs were analyzed for but not detected

⁽⁴⁾ - 46 additional SVOCs were analyzed for but not detected

⁽⁵⁾ - 7 PCBs were analyzed for but not detected

⁽⁶⁾ - 5 additional metals were analyzed for but not detected

⁽⁷⁾ - Chromium VI used as a surrogate (Chromium III: Residential and Nonresidential MSC = 190,000 mg/kg)

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonresidential Groundwater MSCs (Used Aquifer; TDS≤2500)	SS-SB01-GWG 9/30/2022	SS-SB01-GWGD 9/30/2022	SB-07-GWG 9/30/2022	SB-18-GWG 10/7/2022	15-SB01-GWG 10/18/2022	21-SB01-GWG 10/18/2022	31-SB01-GWG* 10/17/2022	33-SB02-GWG 10/17/2022	33-SB02-GWGD 10/17/2022
Sample Date											
Volatile Organic Compounds (µg/L) ⁽¹⁾											
Acetone	31,000	88,000	3.4 U^c	3.4 U^c	3.4 U^c	3.4 U^c	88 U*+	6.5	220 U*+	9.3 *+	9.1 *+
Benzene	5	5	0.6 U	0.6 U	0.6 U	0.6 U	5100	23	12000	43	45
Carbon disulfide	1,500	6,200	0.88 U	0.88 U	0.88 U	0.88 U	16 U	0.82 U	41 U	0.82 U	0.82 U
Chloroform	80	80	2.4	2.3	0.6 U	0.6 U	6.5 U	0.33 U	16 U	0.33 U	0.33 U
Cyclohexane	13,000	53,000	0.63 U	0.63 U	0.63 U	0.63 U	6.4 U	0.32 U	16 U	0.32 U	0.32 U
Ethylbenzene	700	700	0.51 U	0.51 U	0.51 U	0.51 U	20	0.38 J	250	16	17
Isopropylbenzene	840	3,500	0.34 U	0.34 U	0.34 U	0.34 U	6.7 U	0.34 U	21 J	20	22
Methylcyclohexane	NE	NE	0.61 U	0.61 U	0.61 U	0.61 U	14 U	0.71 U	35 U	0.71 U	0.71 U
Styrene	100	100	0.47 U	0.47 U	0.47 U	0.47 U	8.3 U	0.42 U	740	0.42 U	0.42 U
Toluene	1,000	1,000	0.46 U	0.46 U	0.46 U	0.46 U	220	0.85 J	6000	4.7	4.7
Xylenes, Total	10,000	10,000	0.89 U	0.89 U	0.89 U	0.89 U	250	1.8 J	7100	46	50
Semivolatile Organic Compounds (µg/L) ⁽²⁾											
1,1'-Biphenyl	0.84	3.5	3 U	16 U	0.14 U	0.15 U	130 J	0.92 J	860	2.9 J	3.6 JFL
2,4-Dimethylphenol	690	1,900	3.5 U	19 U	0.16 U	0.17 U	470	3.6	320 J	1.9 U	6 JFL
2-Methylnaphthalene	6.3	26	1.3 U	7 U	0.06 U	0.5	1100	5.6	4100	13	16 FL
2-Methylphenol	1,700	4,900	6.3 U	34 U	0.29 U	0.31 U	1400	1.8	370	5.5 J	11 FL
Acenaphthene	2,100	3,800	1.4 U	7.4 U	0.063 U	0.086 J	38	0.75	380	1.6 J	3.1 FL
Acenaphthylene	2,100	5,800	1.4 U	7.4 U	0.063 U	0.13 J	180	2.2	1900	8.4	6.3 FL
Acetophenone	3,500	9,700	3.3 U	18 U	0.15 U	0.17 U	32 U	1.8	59 U	1.8 U	1.6 UFH
Anthracene	66	66	1 U	5.6 U	0.047 U	0.15 J	160	0.84	2600	6.6	5.1 FL
Benzaldehyde	NE	NE	11 U	61 U	0.52 U	0.56 U	110 U	0.56 U	200 U	6.1 U	5.4 U
Benzo[a]anthracene	0.3	3.9	1.6 U	8.5 U	0.072 U	0.26	160	3	2800	9.5	4.2 FL
Benzo[a]pyrene	0.2	0.2	1.1 U	6 U	0.051 U	0.18 J	150	3.6	2300	8.3	3.4 FL
Benzo[b]fluoranthene	0.18	1.2	2 U	11 U	0.093 U	0.19 J	170	5.6	2600	8.1	3.5 FL
Benzo[g,h,i]perylene	0.26	0.26	1.4 U	7.8 U	0.066 U	0.19 J	95	3	1100	5.1	2.3 FL
Benzo[k]fluoranthene	0.18	0.55	1.8 U	10 U	0.085 U	0.11 J	65	1.5	1100	4.8	2.1 FL
Caprolactam	NE	NE	270	580	2.1 J	24	94 U	22	340 J	5.3 U	12 JFL
Carbazole	33	140	1.1 U	5.8 U	0.049 U	0.17 J	130	3.2	1900	7.1	15 FL
Chrysene	1.8	1.9	1.7 U	9.2 U	0.078 U	0.38	140	3.3	2600	8.7	3.8 FL
Dibenz(a,h)anthracene	0.052	0.6	1.5 U	8.2 U	0.069 U	0.075 U	26 J	0.91	370	1.6 J	0.72 UFL
Dibenzofuran	35	97	4 U	22 U	0.18 U	0.24 J	260	1.6	2800	8.9 J	11 FL
Di-n-butyl phthalate	3,500	9,700	15 U	84 U	2.9	1.1	150 U	13	280 U	8.4 U	7.4 UFL
Fluoranthene	260	260	1.3 U	6.8 U	0.058 U	0.34	450	4.3	8300	23	12 FL
Fluorene	1,400	1,900	1.4 U	7.8 U	0.066 U	0.22	280	0.73	4200	7.9	8.9 FL
Indeno[1,2,3-cd]pyrene	0.18	2.3	1.8 U	9.7 U	0.082 U	0.13 J	89	2.8	1200	4.5	2 FL
Methylphenol, 3 & 4	170 ⁽³⁾	490 ⁽³⁾	7.8 U	42 U	0.36 U	0.39 U	200	4.1	510	11	15 FL
Naphthalene	100	100	1.2 U	6.7 U	0.057 U	2.2	15000 E	110 E	27000 E	150	250 4
Phenanthrene	1,100	1,100	1.1 U	6.3 U	0.08 J	0.72	730	2.7	12000	28	20 FL
Phenol	2,000	2,000	10 U	55 U	0.47 U	0.51 U	210	5.6	260 J	13	19 FL
Pyrene	130	130	1.1 U	6.1 U	0.052 U	0.42	310	3.7	5600	18	8.9 FL
Pesticides (µg/L) ⁽⁴⁾											
4,4'-DDD	2.7	11	0.00053 U	0.00053 U	0.00051 U	0.0026 U	0.0054 U^c	0.000049 U^c	---	0.0053 U^c	0.0053 U^c
Endrin aldehyde	NE	NE	0.00052 U	0.00052 U	0.0005 U	0.0025 U^c	0.0052 U	0.000047 U	---	0.0051 U	0.0051 U

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonresidential Groundwater MSCs (Used Aquifer; TDS≤2500)	SS-SB01-GWG 9/30/2022	SS-SB01-GWGD 9/30/2022	SB-07-GWG 9/30/2022	SB-18-GWG 10/7/2022	15-SB01-GWG 10/18/2022	21-SB01-GWG 10/18/2022	31-SB01-GWG* 10/17/2022	33-SB02-GWG 10/17/2022	33-SB02-GWGD 10/17/2022
Sample Date											
PCBs (µg/L) ⁽⁵⁾											
None Detected											
Dioxins (pg/L)											
1,2,3,4,6,7,8-HpCDD	NE	NE	170 JB	56 JIB	9.1 JB	41 B	410 JB	300 JIB	---	960	790 *5-
1,2,3,4,6,7,8-HpCDF	NE	NE	57 JIB	80 JIB	1.4 JIB	4.3 JIB	110 JIB	63 JB	---	99 B	82 B*5-
1,2,3,4,7,8,9-HpCDF	NE	NE	20 UB	18 UB	0.25 UB	1.2 JB	13 JIB	0.91 UB	---	4.2 JIB	1.9 JB*5-
1,2,3,4,7,8-HxCDD	NE	NE	34 JIB	130 JIB	0.14 UB	0.11 U	16 JIB	1 UB	---	19 JIB	16 JB*5-
1,2,3,4,7,8-HxCDF	NE	NE	30 JIB	23 JIB	0.038 UB	1.5 JI	48 JIB	31 JIB	---	15 JB	15 JIB*5
1,2,3,6,7,8-HxCDD	NE	NE	46 JIB	6.4 UB	0.14 UB	1.2 JIB	53 JIB	18 JIB	---	76 B	64 B*5-
1,2,3,6,7,8-HxCDF	NE	NE	7 UB	4.2 UB	0.039 UB	1.8 JB	43 JIB	3.7 UB	---	10 JB	9.4 JB*5-
1,2,3,7,8,9-HxCDD	NE	NE	5.9 U	6.7 U	0.45 JI	0.86 JIB	36 JIB	17 JIB	---	64 B	52 B*5-
1,2,3,7,8,9-HxCDF	NE	NE	7.5 UB	4.7 UB	0.04 UB	0.73 JI	8.4 JIB	4.1 UB	---	3 JB	3.7 JB*5-
1,2,3,7,8-PeCDD	NE	NE	39 JI	140 JI	0.18 U	1.2 JIB	22 JIB	1.7 UB	---	18 JI	15 J*5-
1,2,3,7,8-PeCDF	NE	NE	6.4 UB	10 UB	0.068 UB	0.17 UB	55 JIB	26 JB	---	12 JIB	8.9 JIB*5
2,3,4,6,7,8-HxCDF	NE	NE	6.8 UB	70 JIB	0.037 UB	1 JI	21 JB	10 JIB	---	7.8 JB	6.4 JIB*5
2,3,4,7,8-PeCDF	NE	NE	34 JIB	7.4 UB	0.047 UB	1.6 JB	47 J	24 JI	---	14 JB	11 JB*5-
2,3,7,8-TCDD	0.00003	0.00003	8.1 U	15 U	0.099 U	0.1 U	5.6 JI	1.9 U	---	2.4 J	1.8 J*5-
2,3,7,8-TCDF	NE	NE	5.8 U	8.9 U	0.064 U	0.14 U	35 JB	14 JB	---	19 B	14 B*5-
OCDD	NE	NE	610 JB	390 JIB	48 JIB	1500 B	1000 JB	1300 JB	---	3000 B	2300 B*5-
OCDF	NE	NE	8.5 UB	49 JIB	3.7 JB	11 JIB	78 JB	120 JB	---	36 JIB	25 JB*5-
Total Metals (µg/L) ⁽⁶⁾											
Aluminum	200 ⁽⁷⁾	200 ⁽⁷⁾	860	1500	240	5100	330	1200	180000	5400	30000
Arsenic	10	10	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	150	8.8 J	26
Barium	2,000	2,000	80 J	87 J	56 J	170 J	230	420	3200	270	290
Beryllium	4	4	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	35	1.5 U	6.1
Cadmium	5	5	0.3 U	0.3 U	0.3 U	0.3 U	0.69 J	0.77 J	27	1 J	0.92 J
Calcium	NE	NE	110000	120000	79000	330000	660000	540000	1800000	640000	280000
Chromium	100	100	1.6 U	2.6 J	1.6 U	5.2	2 J	2.7 J	220	8.8	25
Cobalt	10	29	1.9 U	1.9 U	1.9 U	3.5 J	4.4 J	5.9 J	67	3.5 J	4.2 J
Copper	1,000	1,000	2.2 U	2.2 U	2.2 U	12 J	16 J	12 J	680	27	20 J
Iron	300 ⁽⁷⁾	300 ⁽⁷⁾	170	660	170	19000	7200	4500	550000	27000	62000
Lead	5	5	4.4 U	4.4 U	4.4 U	270	11	5.2 J	2200	20	49
Magnesium	NE	NE	280 J	690 J	19000	59000	100000	120000	250000	140000	130000
Manganese	300	300	13 J	51	220	2900	14000	15000	35000	8100	3800
Mercury	2	2	0.13 U	0.13 U	0.13 U	0.13 U	34	3.6	14	99	6.7
Nickel	100	100	1.9 U	1.9 U	1.9 U	14 J	9.4 J	12 J	170	9 J	10 J
Potassium	NE	NE	10000	10000	11000	19000	16000	20000	18000 J	9300	10000
Selenium	50	50	10	9.1 J	3.7 U	3.7 U	31	52	100	30	18
Sodium	NE	NE	12000	13000	25000	140000	310000	52000	32000	27000	24000
Thallium	2	2	3 U	3 U	3 U	3.5 J	3 U	3 U	3.8 J	3 U	3 U
Vanadium	2.4	6.8	7.7 J	8.6 J	5.3 U	5.3 U	5.3 U	5.3 U	210 J	7.5 J	24 J
Zinc	2000	2000	2.6 U	2.6 U	2.6 U	290 B	61	38	16000	190	650

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonresidential Groundwater MSCs (Used Aquifer; TDS≤2500)	SS-SB01-GWG 9/30/2022	SS-SB01-GWGD 9/30/2022	SB-07-GWG 9/30/2022	SB-18-GWG 10/7/2022	15-SB01-GWG 10/18/2022	21-SB01-GWG 10/18/2022	31-SB01-GWG* 10/17/2022	33-SB02-GWG 10/17/2022	33-SB02-GWGD 10/17/2022
Sample Date											
Dissolved Metals (µg/L) ⁽⁸⁾											
Aluminum	200 ⁽⁷⁾	200 ⁽⁷⁾	780	760	41 U	41 U	41 U	41 U	---	41 U	41 U
Arsenic	10	10	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	---	9.2 J	9.5 J
Barium	2,000	2,000	84 J	83 J	51 J	150 J	110 J	51 J	---	54 J	59 J
Cadmium	5	5	0.3 U	0.3 U	0.3 U	0.46 J	0.3 U	0.3 U	---	0.3 U	0.3 U
Calcium	NE	NE	110000	110000	81000	310000	190000	100000	---	120000	130000
Cobalt	10	29	1.9 U	1.9 U	1.9 U	1.9 U	3.3 J	1.9 J	---	1.9 U	1.9 J
Copper	1,000	1,000	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	---	2.2 U	2.2 U
Iron	300 ⁽⁷⁾	300 ⁽⁷⁾	72 U	72 U	72 U	9100	3500	270	---	650	790
Lead	5	5	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	---	4.5 J	4.4 U
Magnesium	NE	NE	260 U	260 U	19000	56000	57000	48000	---	87000	97000
Manganese	300	300	5.1 J	4.3 J	190	2600	3500	280	---	160	180
Nickel	100	100	1.9 U	1.9 U	1.9 U	4.6 J	4.3 J	1.9 U	---	1.9 U	1.9 U
Potassium	NE	NE	10000	11000	11000	19000	11000	15000	---	6800	7500
Selenium	50	50	8.4 J	8.8 J	3.7 U	8.6 J	12	51	---	7.2 J	11
Sodium	NE	NE	12000	12000	26000	140000	280000	43000	---	32000	25000
Thallium	2	2	3 U	3 U	3 U	3 U	3 U	3 U	---	4.5 J	3 U
Vanadium	2.4	6.8	7.8 J	10 J	5.3 U	5.3 U	5.3 UB	5.3 UB	---	5.3 UB	5.3 UB
Zinc	2,000	2,000	2.6 U	2.6 U	2.6 U	8.6 J	11 JB	2.6 UB	---	4.3 JB	2.6 UB
General Chemistry (mg/L)											
Acidity as CaCO3 to pH 8.3	NE	NE	-123	-135	-131	5.2	-299	-93	---	-252	-432
Chloride	250 ⁽⁷⁾	NE	11.9	11.9	24.1	306	396	48.2	---	65.2	69.1
Nitrate as N	10	10	0.264 H	0.256 H	0.0589 JH	0.023 U	0.177 J	6.42	---	6.14 E	2.56
pH (SU)	6.5 - 8.5	NE	11.2	11.2	8.2	7.5 HF	7.5 HF	9.7 HF	---	7.8 HF	7.8 HF
Specific Conductance (µmhos/cm)	NE	NE	830	830	720	2700	3500	1200	---	2000	2000
Sulfate	250 ⁽⁷⁾	NE	151	152	224	153	669	381	---	500	465
Total Alkalinity as CaCO3 to pH 4.5	NE	NE	110	96	170	770	360	52	---	270	390
Total Dissolved Solids	NE	NE	530	460	540	1500	3100	830	---	1200	1200
Turbidity (NTU)	NE	NE	270	450	85	1100	700	2600	---	1000	1100

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonres Groundwater (Used Aquifer; T	44-SB02-GWG 10/18/2022	53-SB01-GWG 10/17/2022	80-SB03-GWG 10/6/2022	81-SB02-GWG 10/6/2022	85-SB01-GWG 10/6/2022	87-SB01-GWG 10/6/2022	89-SB01-GWG 10/3/2022	103-SB02-GLG 10/14/2022	104-SB01-GWG 10/4/2022
Sample Date											
Volatile Organic Compounds (µg/L) ⁽¹⁾											
Acetone	31,000	88,000	22 U	6.8 *+	3.4 U^c	3.4 U^c	3.4 U^c	3.4 U^c	3.4 U^c	4.4 U	3.4 U^c
Benzene	5	5	1200	54	0.6 U	0.6 U	9.1	0.6 U	0.6 U	0.2 U	0.6 U
Carbon disulfide	1,500	6,200	4.1 U	1.3	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.82 U	0.88 U
Chloroform	80	80	1.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.33 U	0.6 U
Cyclohexane	13,000	53,000	1.6 U	0.63 U	0.63 U	1.7	0.63 U	0.63 U	0.63 U	0.32 U	0.63 U
Ethylbenzene	700	700	1.5 U	4.9	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.3 U	0.51 U
Isopropylbenzene	840	3,500	1.7 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Methylcyclohexane	NE	NE	3.5 U	0.71 U	0.61 U	3	0.61 U	0.61 U	0.61 U	0.71 U	0.61 U
Styrene	100	100	2.1 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.42 U	0.47 U
Toluene	1,000	1,000	15	12	0.46 U	0.46 U	0.81 J	0.46 U	0.46 U	0.38 U	0.46 U
Xylenes, Total	10,000	10,000	36	14	0.89 U	1.2 J	0.89 U	0.89 U	0.89 U	0.65 U	0.89 U
Semivolatile Organic Compounds (µg/L) ⁽²⁾											
1,1'-Biphenyl	0.84	3.5	17 J	5 J	0.41 J	1.4 U	2.1 U	0.14 U	3.4 U	0.36 J	1 J
2,4-Dimethylphenol	690	1,900	4.3 UFL	6.7 J	0.33 U	1.6 U	2.5 U	0.16 U	4 U	0.17 U	3.4
2-Methylnaphthalene	6.3	26	80	25	1	0.6 U	0.93 U	0.06 U	1.5 U	1.1	5
2-Methylphenol	1,700	4,900	7.8 UFL	31	0.6 U	2.9 U	4.5 U	0.29 U	7.2 U	0.31 U	4
Acenaphthene	2,100	3,800	16	2	0.27 J	0.63 U	0.98 U	0.063 U	1.6 U	0.72	0.51
Acenaphthylene	2,100	5,800	70 FH	3.4	1	0.63 U	0.98 U	0.063 U	1.6 U	0.11 J	0.36
Acetophenone	3,500	9,700	4.1 U	1.5 U	0.32 U	1.5 U	2.4 U	0.15 U	3.8 U	0.17 U	0.29 U
Anthracene	66	66	94	3.9	0.71	0.47 U	0.74 U	0.047 U	1.2 U	0.47	1.5
Benzaldehyde	NE	NE	14 UFL	5.2 U	1.6 J	5.2 U	8.1 U	0.52 U	13 U	0.56 U	1 U
Benzo[a]anthracene	0.3	3.9	240 4	0.77 J	3.8	0.72 U	1.1 U	0.072 U	1.8 U	0.57	3.5
Benzo[a]pyrene	0.2	0.2	190 4	0.51 U	3.5	0.51 U	0.8 U	0.051 U	1.3 U	0.42	3.4
Benzo[b]fluoranthene	0.18	1.2	300 4	0.93 U	4.4	0.93 U	1.5 U	0.093 U	2.3 U	0.55	6.1
Benzo[g,h,i]perylene	0.26	0.26	120 4	0.66 U	2.8	0.66 U	1 U	0.066 U	1.7 U	0.27	3.4
Benzo[k]fluoranthene	0.18	0.55	84 FH	0.85 U	1.2	0.85 U	1.3 U	0.085 U	2.1 U	0.25	2
Caprolactam	NE	NE	12 U	9.8 J	39	74	94	14 ^c	240	4.3 J	38
Carbazole	33	140	76	26	0.5	0.49 U	0.77 U	0.049 U	1.2 U	0.18 J	1.1
Chrysene	1.8	1.9	250 4	0.78 U	4.2	0.78 U	1.2 U	0.078 U	1.9 U	0.72	5
Dibenz(a,h)anthracene	0.052	0.6	44	0.69 U	1.1	0.69 U	1.1 U	0.069 U	1.7 U	0.094 J	1.3
Dibenzofuran	35	97	62 FH	15	0.5 J	1.8 U	2.9 U	0.18 U	4.6 U	0.92 J	1.1 J
Di-n-butyl phthalate	3,500	9,700	19 JFH	7.1 U	1.5 J	7.1 U	11 U	1.9	18 U	1.4	5.8
Fluoranthene	260	260	510 4	3.5	4.4	0.58 U	0.9 U	0.073 J	1.4 U	1.4	4.1
Fluorene	1,400	1,900	98 4	18	0.53	0.66 U	1 U	0.066 U	1.7 U	0.83	1.4
Indeno[1,2,3-cd]pyrene	0.18	2.3	120 4	0.82 U	2.2	0.82 U	1.3 U	0.082 U	2 U	0.23	2.9
Methylphenol, 3 & 4	170 ⁽³⁾	490	9.7 U	55	2	3.6 U	5.6 U	0.36 U	8.9 U	0.39 U	9.1
Naphthalene	100	100	340 4	190	6.9	0.57 U	0.89 U	0.16 J	1.4 U	2.5	7.1
Phenanthrene	1,100	1,100	370 4	17	2.6	0.53 U	0.83 U	0.21	1.3 U	2.1	7.2
Phenol	2,000	2,000	13 U	150	0.97 U	4.7 U	7.3 U	0.47 U	12 U	0.51 U	5.7
Pyrene	130	130	370 4	2.1	4.6	0.52 U	0.81 U	0.066 J	1.3 U	1.4	5
Pesticides (µg/L) ⁽⁴⁾											
4,4'-DDD	2.7	11	0.0053 U^c	0.0053 U^c	0.0027 U	0.00053 U	0.00053 U	0.00053 U	0.00053 U	0.003 Jp	0.0068
Endrin aldehyde	NE	NE	0.019 *3p	0.0052 U	0.0026 U	0.00051 U	0.00051 U	0.00051 U	0.00051 U	0.0026 U	0.00051 U

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

		PADEP Residential	PADEP Nonres	44-SB02-GWG	53-SB01-GWG	80-SB03-GWG	81-SB02-GWG	85-SB01-GWG	87-SB01-GWG	89-SB01-GWG	103-SB02-GLG	104-SB01-GWG
Sample ID		Groundwater MSCs	Groundwater	10/18/2022	10/17/2022	10/6/2022	10/6/2022	10/6/2022	10/6/2022	10/3/2022	10/14/2022	10/4/2022
Sample Date		(Used Aquifer; TDS≤2500)	(Used Aquifer; T									
PCBs (µg/L) ⁽⁵⁾												
None Detected												
Dioxins (pg/L)												
1,2,3,4,6,7,8-HpCDD	NE	NE	1400 B	36	170	15 J	12 J	8.5 JI	8.3 JIB	45 B	820 JB	
1,2,3,4,6,7,8-HpCDF	NE	NE	180 JB	6.4 JIB	34 B	1.6 JB	1.1 JIB	0.72 JIB	2.4 JB	13 JB	800 JB	
1,2,3,4,7,8,9-HpCDF	NE	NE	19 JIB	0.51 JIB	3.7 JIB	0.039 UB	0.93 JIB	0.52 JIB	0.12 UB	1.5 JB	310 JIB	
1,2,3,4,7,8-HxCDD	NE	NE	56 JIB	1.3 JIB	3.6 JIB	0.7 JIB	0.062 UB	0.49 JIB	0.11 U	0.094 U	83 JIB	
1,2,3,4,7,8-HxCDF	NE	NE	250 JB	8.6 JB	5.6 JI	0.7 JI	1 JI	0.81 JI	0.52 JI	2.9 JI	1100 JB	
1,2,3,6,7,8-HxCDD	NE	NE	170 JIB	3.7 JIB	5.6 JB	1.2 JIB	0.46 JIB	0.47 JB	1.3 JIB	2.2 JIB	160 JIB	
1,2,3,6,7,8-HxCDF	NE	NE	83 JIB	2.2 JIB	3.8 JI	0.78 JI	0.2 U	0.16 U	1.2 JIB	1.6 JIB	720 JB	
1,2,3,7,8,9-HxCDD	NE	NE	180 JB	2.5 JIB	5 J	1.1 JI	0.5 JI	0.5 JI	3.3 JIB	1.1 JI	92 JIB	
1,2,3,7,8,9-HxCDF	NE	NE	78 JB	2 JIB	1.7 JB	0.47 JIB	0.75 JIB	0.2 UB	1.1 JI	0.6 JB	110 JIB	
1,2,3,7,8-PeCDD	NE	NE	86 JIB	3 JI	2 JIB	0.46 JIB	0.081 UB	0.69 JIB	0.15 UB	1.6 J	160 JIB	
1,2,3,7,8-PeCDF	NE	NE	260 JB	14 JB	4.7 JIB	0.42 JIB	0.072 UB	0.081 UB	1.4 JIB	3.9 JIB	1100 JB	
2,3,4,6,7,8-HxCDF	NE	NE	51 JB	2.1 JIB	5.1 J	0.58 JI	0.2 U	0.61 JI	1.3 JI	1.5 JIB	280 JIB	
2,3,4,7,8-PeCDF	NE	NE	290 J	12 JB	5.7 JIB	1.5 JB	0.95 JIB	1.5 JIB	1.8 JIB	6.9 JIB	890 JB	
2,3,7,8-TCDD	0.00003	0.00003	16 JI	0.35 JI	0.091 U	0.077 U	0.11 U	0.098 U	0.14 U	0.17 U	32 J	
2,3,7,8-TCDF	NE	NE	260 B	50 B	5.7 J	0.28 JI	0.089 U	0.086 U	2.8 J	14	1800 B	
OCDD	NE	NE	3100 B	200 B	5200 B	530 B	75 JB	98 JB	84 JB	290 B	3800 JIB	
OCDF	NE	NE	180 JIB	8.8 JIB*5	63 B	2.8 JIB	4.5 JB	1.7 JIB	3.3 JIB	28 JIB	1500 JB	
Total Metals (µg/L) ⁽⁶⁾												
Aluminum	200 ⁽⁷⁾	200	920	27000	750	5000	1200	490	6300 F2FL	1900	35000	
Arsenic	10	10	8.3 U	8.6 J	8.3 U	16	8.3 U	8.3 U	8.3 U	8.3 U	23	
Barium	2,000	2,000	360	97 J	320	110 J	110 J	64 J	75 J	68 J	510	
Beryllium	4	4	1.5 U	4.7	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	7.8	
Cadmium	5	5	1.4 J	1.3 J	0.3 U	0.3 U	0.3 U	0.3 U	0.46 J	0.3 U	3.5 J	
Calcium	NE	NE	660000	370000	320000	200000	280000	120000	230000 4	170000	300000	
Chromium	100	100	3.3 J	31	3.9 J	9.4	5.9	1.6 U	12	3 J	120	
Cobalt	10	29	11 J	7.6 J	14 J	8.7 J	3.9 J	1.9 U	3.3 J	2 J	78	
Copper	1,000	1,000	25	14 J	8.3 J	18 J	13 J	2.2 U	5.2 J	4.3 J	320	
Iron	300 ⁽⁷⁾	300	2800	47000	150000	17000	17000	3100	6800 F2FL	11000	45000	
Lead	5	5	21	92	60	150	15	4.7 J	27	14	120	
Magnesium	NE	NE	57000	56000	55000	29000	43000	24000	15000	19000	41000	
Manganese	300	300	13000	3100	5800	1100	1200	480	380 F2FL	1800	12000	
Mercury	2	2	37	1	0.15 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	1.3 J	
Nickel	100	100	19 J	13 J	19 J	15 J	8 J	5 J	7.4 J	2.2 J	130	
Potassium	NE	NE	19000	9300	27000	12000	22000	12000	12000	9000	17000	
Selenium	50	50	13	17	3.7 U	3.7 U	3.7 U	6.2 J	7.1 J	4.9 J^+	57	
Sodium	NE	NE	81000	230000	160000	54000	72000	52000	76000	25000	12000	
Thallium	2	2	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	5.2 J	
Vanadium	2.4	6.8	5.3 U	15 J	6.8 J	12 J	5.3 U	5.3 U	5.3 U	5.3 U	28 J	
Zinc	2000	2000	700	300	160 B	180 B	41 B	20 B	38	69 B	1000 B	

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonres Groundwater (Used Aquifer; T	44-SB02-GWG 10/18/2022	53-SB01-GWG 10/17/2022	80-SB03-GWG 10/6/2022	81-SB02-GWG 10/6/2022	85-SB01-GWG 10/6/2022	87-SB01-GWG 10/6/2022	89-SB01-GWG 10/3/2022	103-SB02-GLG 10/14/2022	104-SB01-GWG 10/4/2022
Sample Date											
Dissolved Metals (µg/L) ⁽⁸⁾											
Aluminum	200 ⁽⁷⁾	200	41 U	41 U	41 U	41 U	41 U	41 U	47 J	41 U	41 U
Arsenic	10	10	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U
Barium	2,000	2,000	74 J	39 J	140 J	64 J	110 J	58 J	39 J	52 J	60 J
Cadmium	5	5	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Calcium	NE	NE	260000	230000	220000	190000	270000	120000	180000	150000	120000
Cobalt	10	29	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Copper	1,000	1,000	3.4 J	3.8 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Iron	300 ⁽⁷⁾	300	79 J	1400	14000	4300	6800	290	72 U	2400	72 U
Lead	5	5	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
Magnesium	NE	NE	36000	42000	44000	27000	42000	23000	10000 FH	16000	21000
Manganese	300	300	1000	720	1900	890	1100	440	4.1 J	840	170
Nickel	100	100	2.5 J	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Potassium	NE	NE	15000	8300	21000	12000	22000	12000	12000	8300	13000
Selenium	50	50	3.7 U	35	7.1 J	5.7 J	7 J	11	8 J	3.7 U^+	66
Sodium	NE	NE	62000	200000	140000	52000	68000	49000	81000	22000	10000
Thallium	2	2	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Vanadium	2.4	6.8	5.3 UB	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
Zinc	2,000	2,000	10 JB	2.6 UB	6.8 J	2.7 J	2.6 U	2.8 J	2.6 U	6.2 JB	2.6 U
General Chemistry (mg/L)											
Acidity as CaCO3 to pH 8.3	NE	NE	-133	-226	23	-270	-207	-234	-137	-134	-201
Chloride	250 ⁽⁷⁾	NE	37	128 B	156	72.4	125	40.5	79.8	26.9 B	36.7
Nitrate as N	10	10	2.11	29.3 E	0.023 U	0.023 U	0.023 U	0.542 FL	1.18	0.0313 J	0.213
pH (SU)	6.5 - 8.5	NE	7.8 HF	8 HF	7.6 HF	8 HF	7.8 HF	8.1 HF	8 HF	7.9	8.4 HF
Specific Conductance (µmhos/cm)	NE	NE	1800	2300	1800	1400	2000	970	1200	180	860
Sulfate	250 ⁽⁷⁾	NE	528	782	295	213	629	191	407	320	193
Total Alkalinity as CaCO3 to pH 4.5	NE	NE	250	150	420	380	210	230	65	67	160
Total Dissolved Solids	NE	NE	1400	1600	1100	860	1400	670	890	550	570
Turbidity (NTU)	NE	NE	1500	2000	5600	550	600	400	400	280	6200

TABLE 4

SUMMARY OF DETECTED ANALYTICAL DATA - GROUNDWATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Notes/Qualifiers:

---	- Not Analyzed
%	- percent
*+	- LCS and/or LCSD is outside acceptance limits; biased high
^c	- CCV recovery is outside acceptance limits
µg/L	- microgram per liter
µhos/cm	- microhos per centimeter
B	- analyte was found in the blank
CCV	- Continuing Calibration Verification
EMPC	- Estimated Maximum Possible Concentration
GWG	- Groundwater Grab
H	- sample was prepped or analyzed beyond specified holding times
HF	- field parameter with a holding time of 15 minutes; test performed by laboratory as requested
I	- value is EMPC
J	- result is less than the RL but greater than or equal to the MDL; estimated
LCS	- Laboratory Control Sample
LCSD	- Laboratory Control Sample Duplicate
MDL	- Method Detection Limit
mg/L	- milligram per liter
MSC	- Medium-Specific Concentration
NE	- Not Established
NTU	- Nephelometric Turbidity Units
p	- %RPD between the primary and confirmation column/detector is >40%; the lower volume has been reported
PADEP	- Pennsylvania Department of Environmental Protection
PCB	- Polychlorinated Biphenyl
pg/L	- picogram per liter
RL	- Reporting Limit
RPD	- Relative Percent Difference
SMCL	- Secondary Maximum Contaminant Level
SU	- Standard Unit
SVOCs	- Semi Volatile Organic Compounds
TDS	- Total Dissolved Solids
U	- Not Detected
VOCs	- Volatile Organic Compounds
Bold	- Concentration is detected
Shaded	- Detected concentration exceeds the PADEP Residential Groundwater MSCs
Boxed	- Detected concentration exceeds the PADEP Nonresidential Groundwater MSCs

(1) - 37 additional VOCs were analyzed for but not detected
(2) - 37 additional SVOCs were analyzed for but not detected
(3) - 4-Methylphenol used as a surrogate
(4) - 19 additional pesticides were analyzed for but not detected
(5) - 7 PCBs were analyzed for but not detected
(6) - Antimony and silver were also analyzed for but not detected
(7) - SMCL
(8) - 5 additional dissolved metals were analyzed for but not detected

* - SVOCs and metals for this sample were collected 10/18/2022

TABLE 5

SUMMARY OF DETECTED ANALYTICAL RESULTS - GROUNDWATER (PW)
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	PADEP Residential Groundwater MSCs (Used Aquifer; TDS≤2500)	PADEP Nonresidential Groundwater MSCs (Used Aquifer; TDS≤2500)	PW01 9/26/2022
Date			
Volatile Organic Compounds (µg/L) ⁽¹⁾			
Chlorodibromomethane	80	80	3.7 ^c
Chloroform	80	80	26
Dichlorobromomethane	80	80	10
Semivolatile Organic Compounds (µg/L) ⁽²⁾			
Butyl benzyl phthalate	340	1400	0.56 J
Caprolactam	NE	NE	0.62 J
Phenanthrene	1,100	1,100	0.26
Pesticides (µg/L) ⁽³⁾			
<i>None Detected</i>			
PCBs (µg/L) ⁽⁴⁾			
<i>None Detected</i>			
Total Metals (µg/L) ⁽⁵⁾			
Aluminum	200 ⁽⁶⁾	NE	78 J
Barium	2,000	2,000	22 J
Calcium	NE	NE	34000
Copper	1,000	1,000	4.1 J
Magnesium	NE	NE	8700
Potassium	NE	NE	1500 J
Sodium	NE	NE	11000
Zinc	2000	2000	4.7 JB
Dissolved Metals (µg/L) ⁽⁷⁾			
Aluminum	200 ⁽⁶⁾	NE	100 J
Barium	2,000	2,000	24 J
Calcium	NE	NE	36000
Copper	1,000	1,000	4.5 J
Magnesium	NE	NE	9200
Potassium	NE	NE	1500 J
Sodium	NE	NE	11000
Zinc	2,000	2,000	4.5 JB
General Chemistry (mg/L) ⁽⁸⁾			
Acidity as CaCO ₃ to pH 8.3	NE	NE	-66
Chloride	250 ⁽⁶⁾	NE	22.8
pH (SU)	6.5 - 8.5	NE	8.2 HF
Specific Conductance (µmhos/cm)	NE	NE	310
Sulfate	250 ⁽⁶⁾	NE	20.5
Total Alkalinity as CaCO ₃ to pH 4.5	NE	NE	100
Total Dissolved Solids	NE	NE	200
Turbidity (NTU)	NE	NE	0.25 J

TABLE 5

SUMMARY OF DETECTED ANALYTICAL RESULTS - GROUNDWATER (PW)
 ERIE COKE SITE
 CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Notes/Qualifiers:

^c - CCV recovery is outside acceptance limits
 µg/L - microgram per liter
 µhos/cm - microhos per centimeter
 B - analyte was found in the blank
 CCV - Continuing Calibration Verification
 HF - field parameter with a holding time of 15 minutes; test performed by laboratory as requested
 J - result is less than the RL but greater than or equal to the MDL; estimated
 MDL - Method Detection Limit
 mg/L - milligram per liter
 MSC - Medium-Specific Concentration
 NE - Not Established
 NTU - Nephelometric Turbidity Units
 PADEP - Pennsylvania Department of Environmental Protection
 PCB - Polychlorinated Biphenyl
 PW - Potable Water
 RL - Reporting Limit
 SMCL - Secondary Maximum Contaminant Level
 SU - Standard Unit
 SVOCs - Semi Volatile Organic Compounds
 U - Not Detected
 VOCs - Volatile Organic Compounds

Bold	- Concentration is detected
Shaded	- Detected concentration exceeds the PADEP Residential Groundwater MSCs
Boxed	- Detected concentration exceeds the PADEP Nonresidential Groundwater MSCs

- (1) - 44 additional VOCs were analyzed for but not detected
 (2) - 62 additional SVOCs were analyzed for but not detected
 (3) - 21 additional pesticides were analyzed for but not detected
 (4) - 7 PCBs were analyzed for but not detected
 (5) - 15 additional total metals were analyzed for but not detected
 (6) - SMCL
 (7) - 15 additional dissolved metals were analyzed for but not detected
 (8) - Nitrate as N was also analyzed for but not detected

TABLE 6

SUMMARY OF DETECTED ANALYTICAL RESULTS - SEDIMENT
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	USEPA Freshwater Sediment BTAGs	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Surface Soil MSCs ⁽²⁾	SED-01	SED-02	SED-03	SED-04	SED-05	SED-05D	SED-06	SED-07	SED-08	SED-09	SED-10	72-SED01		
Date				9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/14/2022	9/14/2022	9/21/2022	
Depth Range				0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
Volatile Organic Compounds (µg/kg) ⁽³⁾																	
1,4-Dichlorobenzene	599	10,000	10,000	2.3 U	2 U	1.8 U	2 U	1.9 U	1.9 U	1.7 U	2.1 U	1.9 U	1.7 U	1.5 U	3.1 U*3		
Acetone	NE	3,100,000	8,800,000	6 U	5.3 U	4.8 U	5.2 U	5 U	4.8 U	4.5 U	5.4 U	5 U	4.4 U	3.8 U	7.9 U		
Benzene	NE	500	500	2.2 U	1.9 U	1.7 U	1.9 U	1.8 U	1.7 U	1.6 U	2 U	1.8 U	1.6 U	1.4 U	2.9 U		
Chloroform	NE	8,000	8,000	2.5 U	2.2 U	2 U	2.2 U	2.1 U	2 U	1.9 U	2.2 U	2.1 U	1.8 U	1.6 U	3.3 U		
Cyclohexane	NE	1,700,000	6,900,000	3.7 U	3.3 U	2.9 U	3.2 U	3.1 U	3 U	2.8 U	3.3 U	3.1 U	2.7 U^c	2.3 U^c	4.9 U		
Ethylbenzene	1,100	70,000	70,000	2.9 U	2.5 U	2.3 U	2.5 U	2.4 U	2.3 U	2.1 U	2.6 U	2.4 U	2.1 U	1.8 U	3.8 U		
Isopropylbenzene	86	600,000	2,500,000	4 UFH	3.5 U	3.2 U	3.5 U	3.4 U	3.2 U	3 U	3.6 U	3.3 U^c	2.9 U	2.5 U	5.3 U		
Methylcyclohexane	NE	NE	NE	3.7 U	3.3 U	2.9 U	3.2 U	3.1 U	3 U	2.8 U	3.4 U	3.1 U	2.7 U	2.4 U	4.9 U		
Tetrachloroethene	468	500	500	3.1 U^c	2.7 U^c	2.5 U^c	2.7 U^c	2.6 U^c	2.5 U^c	2.3 U^c	2.8 U^c	2.6 U	2.3 U	2 U	4.1 U^c		
Toluene	NE	100,000	100,000	2.2 U	2 U	1.8 U	1.9 U	1.9 U	1.8 U	1.7 U	2 U	1.8 U^c	1.6 U	1.4 U	2.9 U		
Xylenes, Total	NE	1,000,000	1,000,000	11 U	9.8 U	8.8 U	9.6 U	9.3 U	8.9 U	8.4 U	10 U	9.2 U	8.1 U	7 U	15 U		
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾																	
1,1'-Biphenyl	1,220	370	1,500	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	14 U	13 U	25 U		
2,4-Dimethylphenol	29	69,000	190,000	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U	12 U	42 J		
2-Methylnaphthalene	20	25,000	100,000	7.6	40	34	3.4 J	3.2 J	7.8	1.6 U	1.6 U	5.3 J	19	4.4 J	48		
2-Methylphenol	NE	170,000	490,000	9.5 U	9.5 U	9.3 U	9.4 U	9.4 U	9.4 U	9.6 U	9.4 U	9.3 U	11 U	10 U	30 J		
Acenaphthene	7	2,600,000	4,700,000	3.5 J	26	7.9	1.9 U	1.9 U	3.6 J	1.9 U	1.9 U	11	8.2	3.2 J	16		
Acenaphthylene	6	2,400,000	6,600,000	12	69	47	9.6	4.2 J	6.9	1.5 U	1.4 U	6 J	86	9.5	27		
Anthracene	57	350,000	350,000	18	140	100	12	7.3	16	3.4 J	6.6	42	110	18	33		
Benzo[a]anthracene	108	6,100	130,000	52	440	240	36	31	60	7.4	19	130	300	85	40		
Benzo[a]pyrene	150	4,200	46,000	45	390	150	28	30	57	6.6 J	17	100	270	79	27		
Benzo[b]fluoranthene	NE	3,500	76,000	48	460	220	35	34	66	6.8	19	120	310	94	34		
Benzo[g,h,i]perylene	170	180,000	180,000	41	340	140	28	29	54	5.6 J	13	100	200	61	25		
Benzo[k]fluoranthene	240	3,500	76,000	22	140	68	11	13	29	3.6 J	8.3	46	120	37	9.6 J		
Bis(2-ethylhexyl) phthalate	180	130,000	130,000	35 U	55 J	34 U	35 U	35 U	35 U	35 U^c	35 U^c	35 J	42 U^c	37 U^c	72 U		
Carbazole	NE	21,000	89,000	4.4 J	33	27	1.8 J	2.8 J	6.7	1.6 U	1.5 U	15	16	5.9 J	13 J		
Chrysene	166	35,000	230,000	47	390	220	34	31	68	7.9	18	130	300	86	64		
Dibenz(a,h)anthracene	33	1,000	22,000	11	96	46	9	8.5	16	4.3 U	4.2 U	28	53	21	14		
Dibenzofuran	415	90,000	250,000	12 U	50	59	12 U	12 U	12 U	12 U	12 U	12 U	27 J	13 U	25 U		
Di-n-butyl phthalate	6,470	1,400,000	4,000,000	110	45	72	37	14 U	20 J	15 U	27 J	43	17 U	52	94		
Fluoranthene	423	3,200,000	3,200,000	89 FL	840	460	58	50	110	18	41	260	620	150	69		
Fluorene	77	2,800,000	3,800,000	13	63	43	4.9 J	4.5 J	11	1.3 U	1.3 U	16	39	4.6 J	29		
Indeno[1,2,3-cd]pyrene	17	3,500	76,000	32	310	120	22	26	45	5.2 J	12	92	180	58	19		
Methylphenol, 3 & 4	670 ⁽⁵⁾	17,000 ⁽⁵⁾	49,000 ⁽⁵⁾	9.8 U	14 J	9.5 U	9.7 U	9.6 U	9.6 U	9.8 U	9.7 U	9.5 U	12 U	10 U	83		
Naphthalene	176	13,000	25,000	73 FL	320	68	13	14	37	1.3 U	5.3 J	8.1	120	22	49		
Phenanthrene	NE	10,000,000	10,000,000	66	540	580	37	29	64	15	23	160	330	73	110		
Phenol	420	200,000	200,000	10 U	10 U	9.8 U	10 U	9.9 U	9.9 U	10 U	10 U	9.8 U	12 U	11 U	40 J		
Pyrene	195	2,200,000	2,200,000	84	740	420	58	45	110	12	28	240	440	100	65		

TABLE 6

SUMMARY OF DETECTED ANALYTICAL RESULTS - SEDIMENT
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	USEPA Freshwater Sediment BTAGs	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Surface Soil MSCs ⁽²⁾	SED-01	SED-02	SED-03	SED-04	SED-05	SED-05D	SED-06	SED-07	SED-08	SED-09	SED-10	72-SED	
Date				9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/13/2022	9/14/2022	9/14/2022	9/21/2022
Depth Range				0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
Pesticides (µg/kg) ⁽⁶⁾																
None Detected																
PCBs (µg/kg) ⁽⁷⁾																
PCB-1254	NE	4,400	64,000	7.6 U	6.7 U	6 U	6.6 U	32	6.2 U	5.8 U	6.5 U	14 J	5.9 U	5.1 U	10 U	
PCB-1260	NE	9,300	46,000	7.2 UFL	6.3 U	5.6 U	6.2 U	6 U	5.9 U	5.5 U	6.2 U	5.9 U	5.6 U	4.8 U	9.5 U	
Metals (mg/kg)																
Aluminum	NE	190,000	190,000	2000 FH	11000	9600	7000	2200	2400	7900	11000	1900	5200	4200	1900	
Antimony	2	27	27	0.44 UFL	0.39 U	0.49 U	0.78 U	0.37 U	0.23 U	0.29 U	1.5 U	0.28 U	0.29 U	0.38 U	0.52 U	
Arsenic	10	12	29	3.4 FL	3.5	7.4	8.8	2.9	2.7	1.1	22	2.5	5.4	5	11	
Barium	NE	8,200	8,200	21 JFL	100	100	94	20 J	21	45	170	12 J	47	59	50	
Beryllium	NE	320	320	0.22 JFL	1.5	1.3	1	0.24 J	0.27 J	0.98	1.5	0.14 J	0.75	0.6	0.53 J	
Cadmium	1	38	38	0.11 UFL	0.095 U	0.059 U	0.095 U	0.089 U	0.055 U	0.069 U	0.075 U	0.074 J	0.071 U	0.047 U	0.13 U	
Calcium	NE	NE	NE	9900 FH	72000	54000	48000	11000	12000	32000	100000	14000	27000	24000	5000	
Chromium	43	37 ⁽⁸⁾	180 ⁽⁸⁾	4.4 FL	3.4	11	72	4	5	1.2	30	3.2	5.5	8.1	4.4	
Cobalt	50	45	130	2.5 JFL	1.6 J	2.8 J	3.8 J	2.3 J	2.1 J	0.66 U	7	2.2 J	1.8 J	1.8 J	2.5 J	
Copper	32	7,200	43,000	11 FL	6.8	12	46	6.6	16	1.4 U	28	7.2	4.9	92	13	
Iron	20,000	150,000	190,000	20000	6700	54000	77000	10000	7700	21000	240000	6100	18000	46000	4300	
Lead	36	450	450	2.8 FL	3.3	2.1	3.1	4	4.2	0.82 U	4.4 U	4.2	0.85 U	2.1	5.7	
Magnesium	NE	NE	NE	1600	8400	6600	5100	1800	1700	3900	7500	1700	4700	2800	430 J	
Manganese	460	2,000	2,000	270	830	1700	1600	200	200	540	4000	87	610	760	41	
Mercury	0	10	10	0.029 U	0.024 U	0.026 U	0.025 U	0.021 U	0.023 U	0.023 J	0.026 U	0.032 J	0.02 UB	0.03 B	0.032 U	
Nickel	23	650	650	4.8 JFL	3.8 J	11	35	5.1	4.4	0.7 J	17 J	4.9	2.6 J	6.2	4.8 J	
Potassium	NE	NE	NE	210 JFL	810	700	480 J	240 J	220 J	230 J	520	240 J	410 J	300 J	220 J	
Selenium	2	26	26	0.84 J^1+F	1 J^1+	1	1.3 ^1+	0.56 U^1+	0.35 U^1+	0.76 J^1+	3.4 J^1+	0.43 U^1+	0.45 U^1+	1.1	1.8	
Silver	1	84	84	0.15 UFL	0.14 U	0.084 U	0.13 U	0.13 U	0.078 U	0.098 U	0.53 U	0.096 U	0.1 U	0.066 U	0.18 U	
Sodium	NE	NE	NE	74 UFL	360 J	270 J	230 J	68 J	75 J	140 J	450 J	83 J	130 J	110 J	140 J	
Thallium	NE	2.2	14	0.41 UFL	0.37 U	0.23 U	0.53 J	0.34 U	0.21 U	0.27 U	1.7 J	0.26 U	0.28 U	0.22 J	0.49 U	
Vanadium	NE	15	220	3.9 JFL	3.5 J	13	18	3.7 J	3.5 J	2.4 J	42	3.2 J	8.6	7.4	6.9 J	
Zinc	121	12,000	12,000	22 FHF2	14	15	22	26	23	1.1 U	6.2	29	1.2 U	20	17	
TOC (mg/kg)																
Total Organic Carbon - Duplicates	NE	NE	NE	---	---	---	---	---	---	---	---	5200	---	---	---	

TABLE 6

SUMMARY OF DETECTED ANALYTICAL RESULTS - SEDIMENT
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	USEPA Freshwater Sediment BTAGs	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Surface Soil MSCs ⁽²⁾	80-SED01	81-SED01	87-SED01	89-SED01	OF-001-SED01	OF-001-SED02	OF-SED01	56-SED01	56-SEP01P	VAULTA-SED	VAULTA-SEDD	
Date				9/20/2022	9/20/2022	9/21/2022	9/21/2022	9/20/2022	9/20/2022	10/18/2022	9/26/2022	9/26/2022	9/26/2022	9/26/2022	
Depth Range				0-0	0-0	0-0	0-0	0-0	0-0		0-0	0-0	0-0	0-0	0-0
Volatile Organic Compounds (µg/kg) ⁽³⁾															
1,4-Dichlorobenzene	599	10,000	10,000	16 J	2 U	2.2 U*3	130 U	1.9 U	1.9 U	---	2.1 U	1.9 U	2.6 U	2.8 U	
Acetone	NE	3,100,000	8,800,000	150	5.1 U^c	150	340 U^c	4.9 U^c	4.9 U^c	---	5.6 U^c*+	4.9 U^c*+	6.7 U^c*+	7.3 U^c*+	
Benzene	NE	500	500	9.6 U	1.9 U	6.4 J	120 U	1.8 U	1.8 U	---	2 U	1.8 U	2.4 U	2.6 U	
Chloroform	NE	8,000	8,000	11 U	2.1 U	2.4 U	680	2 U	2 U	---	2.3 U	2 U	2.8 U	3 U	
Cyclohexane	NE	1,700,000	6,900,000	16 U	3.1 U	110	210 U	3 U	3 U	---	3.4 U^c	3 U^c	4.1 U^c	4.5 U^c	
Ethylbenzene	1,100	70,000	70,000	13 U	2.4 U	63	160 U	2.3 U	2.3 U	---	2.6 U	2.3 U	3.2 U	3.5 U	
Isopropylbenzene	86	600,000	2,500,000	18 U	3.4 U	69	230 U	3.3 U	3.2 U	---	3.7 U	3.2 U	4.5 U	4.9 U	
Methylcyclohexane	NE	NE	NE	16 U	3.2 U	210	450	3 U	3 U	---	3.4 U^c*+	3 U^c*+	4.1 U^c*+	4.5 U^c*+	
Tetrachloroethene	468	500	500	14 U^c*+	2.6 U	14 ^c	180 U	2.5 U	2.5 U	---	2.9 U	2.5 U	3.5 U	3.8 U	
Toluene	NE	100,000	100,000	9.8 U	1.9 U	130	450	1.8 U	1.8 U	---	2.1 U	1.8 U	2.5 U	2.7 U	
Xylenes, Total	NE	1,000,000	1,000,000	140	9.5 U	590	790 J	9.1 U	9 U	---	10 U	9 U	12 U	13 U	
Semivolatile Organic Compounds (µg/kg) ⁽⁴⁾															
1,1'-Biphenyl	1,220	370	1,500	1800 U	380 U	340 J	210	160 U	320 U	---	18 U	17 U	68 U	98 U	
2,4-Dimethylphenol	29	69,000	190,000	1600 U	340 U	160 U	61 U	150 U	290 U	---	16 U	16 U	62 U	90 U	
2-Methylnaphthalene	20	25,000	100,000	3300	590	540	1200	55 J	180	---	26	31	59	56	
2-Methylphenol	NE	170,000	490,000	1400 U	290 U	140 U	52 U	130 U	250 U	---	14 U	14 U	53 U	77 U	
Acenaphthene	7	2,600,000	4,700,000	1300	680	28 U	280	160	110 J	---	3.9 J	4.4 J	220	260	
Acenaphthylene	6	2,400,000	6,600,000	3200	1100	21 U	650	2000	1400	---	2.1 U	2.1 U	94	73	
Anthracene	57	350,000	350,000	9300	9700	25 U	930	1400	1300	---	28	52	140	100	
Benzo[a]anthracene	108	6,100	130,000	13000	3800	89 J	2800	4100	3700	---	87	67	480	310	
Benzo[a]pyrene	150	4,200	46,000	8900	3200	42 U	3600	3100	3300	---	49	38	550	340	
Benzo[b]fluoranthene	NE	3,500	76,000	12000	3900	120	3800	3200	3500	---	58 FL	50	640	390	
Benzo[g,h,i]perylene	170	180,000	180,000	4900	2100	78 J	3900	2000	1800	---	33	33	470	300	
Benzo[k]fluoranthene	240	3,500	76,000	3800	1200	29 U	1300	1200	1400	---	2.9 U	2.8 U	220	160	
Bis(2-ethylhexyl) phthalate	180	130,000	130,000	5200 U	1100 U	510 U	410 J	470 U	920 U	---	52 U^c	50 U^c	250 J^c	290 U^c	
Carbazole	NE	21,000	89,000	2600	2000	23 U	340	46 J	40 U	---	12	18	47	13 U	
Chrysene	166	35,000	230,000	14000	4000	120	3000	3600	3300	---	140	120	550	370	
Dibenz(a,h)anthracene	33	1,000	22,000	1800	610	62 U	990	710	570	---	21	18	120	100	
Dibenzofuran	415	90,000	250,000	6200	1100	180 U	550	160 U	320 U	---	18 U	17 U	69 U	99 U	
Di-n-butyl phthalate	6,470	1,400,000	4,000,000	2100 U	450 U	210 U	79 U	190 U	380 U	---	86 ^c	63 ^c	190 ^c	150 J^c	
Fluoranthene	423	3,200,000	3,200,000	27000	6800	180	4600	5800	6000	---	51	84	1000	610	
Fluorene	77	2,800,000	3,800,000	6600	2600	19 U	350	220	390	---	8.9 J	11	170	180	
Indeno[1,2,3-cd]pyrene	17	3,500	76,000	4600	1800	48 U	3400	2000	1700	---	17	14	410	280	
Methylphenol, 3 & 4	670 ⁽⁵⁾	17,000 ⁽⁵⁾	49,000 ⁽⁵⁾	1400 U	300 U	180 J	240	130 U	250 U	---	14 U	14 U	55 U	79 U	
Naphthalene	176	13,000	25,000	12000	1600	19 U	2800	230	830	---	35	46	480	740	
Phenanthrene	NE	10,000,000	10,000,000	35000	8500	340	2800	2000	2000	---	120	210	400	310	
Phenol	420	200,000	200,000	1500 U	310 U	150 U	1100	130 U	260 U	---	15 U	14 U	56 U	81 U	
Pyrene	195	2,200,000	2,200,000	26000	5000	290	3800	4600	5200	---	64	83	670	470	

TABLE 6

SUMMARY OF DETECTED ANALYTICAL RESULTS - SEDIMENT
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Sample ID	USEPA Freshwater Sediment BTAGs	PADEP Residential Soil MSCs ⁽¹⁾	PADEP Nonresidential Surface Soil MSCs ⁽²⁾	80-SED01	81-SED01	87-SED01	89-SED01	OF-001-SED01	OF-001-SED02	OF-SED01	56-SED01	56-SEP01P	VAULTA-SED	VAULTA-SEDD			
Date				9/20/2022	9/20/2022	9/21/2022	9/21/2022	9/20/2022	9/20/2022	10/18/2022	9/26/2022	9/26/2022	9/26/2022	9/26/2022			
Depth Range				0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0		
Pesticides (µg/kg) ⁽⁶⁾																	
None Detected																	
PCBs (µg/kg) ⁽⁷⁾																	
PCB-1254	NE	4,400	64,000	36 U	7.6 U	7.2 U	6.8 U	26	24	---	7.2 U	7 U	9.3 U	10 U			
PCB-1260	NE	9,300	46,000	34 U	7.2 U	6.8 U	6.5 U	6.3 U	6.3 U	---	6.8 U	6.7 U	34 ^c	9.6 U			
Metals (mg/kg)																	
Aluminum	NE	190,000	190,000	11000	1500	1400	800	13000	8100	---	2400 F2FLF	1300	2000	3500			
Antimony	2	27	27	5.7 J	0.97 J	0.42 U	0.37 U	1.9 U	1.7 U	---	0.44 U	0.72 J	0.46 U	0.61 U			
Arsenic	10	12	29	58	4	4.5	4.7	15	34	---	2.1	3.2	9.9	17			
Barium	NE	8,200	8,200	330	74	53	30	100	77	---	19 JF2FH	24 J	74	89			
Beryllium	NE	320	320	5	0.3 J	0.56	0.48 J	2	1.6	---	0.2 J	0.17 J	0.17 J	0.32 J			
Cadmium	1	38	38	1.2 J	1.7	0.33 J	0.13 J	0.98	1	---	0.11 U	0.092 U	0.44 J	0.52 J			
Calcium	NE	NE	NE	5800	13000	5700	4100	53000	39000	---	1600 F2FH	1400	240000	250000			
Chromium	43	37 ⁽⁸⁾	180 ⁽⁸⁾	43	12	8.1	4.4	20	28	---	4.5	29	13	14			
Cobalt	50	45	130	33	8.6	3.1 J	1.7 J	4.5 J	7.1	---	1.9 J	3.1 J	3.4 J	6.7 J			
Copper	32	7,200	43,000	170 B	440 B	50	16	61 B	54 B	---	7.2	7.8	44	34			
Iron	20,000	150,000	190,000	67000	17000	8500	5100	110000	280000	---	3600 F2B4	20000 B	13000 B	35000 B			
Lead	36	450	450	150	290	15	12	97	100	---	2.1	2.5	22	21			
Magnesium	NE	NE	NE	3000 J	1100	1100	460 J	7500	4600	---	160 JF2	150 J	1400	2400			
Manganese	460	2,000	2,000	570	190	83	62	2100	4500	---	47 F2FH	160	160	290			
Mercury	0	10	10	1.4	160	0.097	3	1.8	0.81	---	0.03 U	0.022 U	1.3	0.91			
Nickel	23	650	650	71	14	11	5.1	18 J	18 J	---	3.7 J	24	9.8	20			
Potassium	NE	NE	NE	2700 J	150 J	410 J	180 J	1000	250 J	---	400 J	220 J	340 J	520 J			
Selenium	2	26	26	12	0.96 J	1.1 J	0.82 J	3.7	7.9	---	1.1 J	1.4	2.6	2.7			
Silver	1	84	84	0.64 U	12	0.14 U	0.13 U	0.28 J	0.6 U	---	0.15 U	0.13 U	0.16 U	0.21 U			
Sodium	NE	NE	NE	400 J	130 J	360 J	2400	330 J	170 J	---	100 J	76 J	840	950 J			
Thallium	NE	2.2	14	1.7 U	0.4 U	0.39 U	0.35 U	2 J	2.3 J	---	0.42 U	0.36 U	0.43 U	0.57 U			
Vanadium	NE	15	220	68	3 J	6.9	6.2	19 J	51	---	2.6 J	3 J	3.6 J	8 J			
Zinc	121	12,000	12,000	380 B	340 B	170	36	680 B	620 B	---	27 F2FH	59	51	63			
TOC (mg/kg)																	
Total Organic Carbon - Duplicates	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---			

TABLE 6

SUMMARY OF DETECTED ANALYTICAL RESULTS - SEDIMENT
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY, PENNSYLVANIA

Notes/Qualifiers:

- - Not Analyzed
- *+ - LCS and/or LCSD is outside acceptance limits; biased high
- *3 - ISTD response or retention time is outside acceptance limits
- ^1+ - ICV is outside acceptance limits; high biased
- ^c - CCV recovery is outside acceptance limits
- µg/kg - microgram per kilogram
- BTAG - Biological Technical Assistance Group
- CCV - Continuing Calibration Verification
- F2 - MS/MSD RPD exceeds control limits
- FH - MS and/or MSD recovery above control limits
- FL - MS and/or MSD recovery below control limits
- ICV - Initial Calibration Verification
- ISTD - Internal Standard Spiking Solution
- J - result is less than the RL but greater than or equal to the MDL; estimated
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MDL - Method Detection Limit
- mg/kg - milligram per kilogram
- MS - Matrix Spike
- MSC - Medium-Specific Concentration
- MSD - Matrix Spike Duplicate
- NE - Not Established
- PADEP - Pennsylvania Department of Environmental Protection
- PCB - Polychlorinated Biphenyl
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SVOCs - Semi Volatile Organic Compounds
- TOC - Total Organic Carbon
- U - Not Detected
- USEPA - United States Environmental Protection Agency
- VOCs - Volatile Organic Compounds

- Bold** - Concentration is detected
- Shaded** - Detected concentration exceeds the USEPA Freshwater BTAG value
- Boxed** - Detected concentration exceeds the PADEP Residential Soil MSC
- Italics* - Detected concentration exceeds the PADEP Nonresidential Soil MSC

⁽¹⁾ - PADEP Residential MSCs are determined by the lower of the residential Direct Contact and residential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽²⁾ - PADEP Nonresidential MSCs are determined by the lower of the nonresidential Direct Contact and nonresidential Soil-to-Groundwater (Used aquifer; TDS≤2500) values. The Soil-to-Groundwater value is determined by the higher of the 100x Groundwater MSC and Generic Value.

⁽³⁾ - 37 additional VOCs were analyzed for but not detected

⁽⁴⁾ - 39 additional SVOCs were analyzed for but not detected

⁽⁵⁾ - 4-Methylphenol used as a surrogate

⁽⁶⁾ - 21 pesticides were analyzed for but not detected

⁽⁷⁾ - 5 additional PCBs were analyzed for but not detected

⁽⁸⁾ - Chromium VI used as a surrogate (Chromium III: Residential and Nonresidential MSC = 190,000 mg/kg)

TABLE 7

**SUMMARY OF DETECTED ANALYTICAL RESULTS - SURFACE WATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY PENNSYLVANIA**

Sample ID Date	USEPA Water Quality Standards			81-SW01 9/20/2022	87-SW01 9/21/2022	89-SW01 9/21/2022	56-SW01 9/26/2022	56-SW01D 9/26/2022
	CCC	CMC	HHC					
Volatile Organic Compounds (µg/L) ⁽¹⁾								
2-Butanone (MEK)	32,000	230,000	210,000	2.6 U	26 J ^c	2.6 U ^c	2.6 U	2.6 U
4-Methyl-2-pentanone (MIBK)	5,000	26,000	NE	3.1 U	260	3.1 U	3.1 U	3.1 U
Acetone	86,000	450,000	3,500	3.4 U	180 ^c	3.4 U ^c	3.4 U ^c	3.4 U ^c
Toluene	330	1,700	57	0.46 U	19	0.46 U	0.46 U	0.46 U
Semivolatile Organic Compounds (µg/L) ⁽²⁾								
Acenaphthene	17	83	70	0.065 U	0.63 U	0.068 UFL	0.068 U	0.072 J
Anthracene	NE	NE	300	0.052 J	0.47 U	0.051 UFL	0.051 U	0.051 U
Caprolactam	NE	NE	NE	2.4 J	4.5 U	3.5 JFL	0.81 J	1.4 J
Di-n-butyl phthalate	21	110	20	1.2	7.1 U	1.4 FL	0.9 J	0.93 J
Fluoranthene	40	200	20	0.066 J	0.58 U	0.063 UFL	0.063 UFL	0.063 U
Methylphenol, 3 & 4	160 ⁽³⁾	800 ⁽³⁾	NE	0.37 U	48	0.39 UFL	0.39 UFL	0.39 U
Naphthalene	43	140	NE	0.07 J	0.57 U	0.11 JFLF2	0.087 JFL	0.13 J
Phenanthrene	1	5	NE	0.16 J	0.53 U	0.17 JFL	0.17 J	0.16 J
Pyrene	NE	NE	20	0.069 J	3.3	0.064 JFL	0.056 U	0.056 U
Pesticides (µg/L) ⁽⁴⁾								
delta-BHC	NE	NE	NE	0.00061 U	0.0062 U	0.003 FL	0.00062 U	0.00061 U
Endrin	0.036	0.086	0.03	0.00022 U	0.044 p	0.00039 Jp	0.00022 U	0.00022 U
Heptachlor	0.0038	0.52	0.000006	0.00043 U	0.0044 U	0.0043 F2p	0.00043 U	0.00043 U
Heptachlor epoxide	0.0038	0.5	0.00003	0.00032 U	0.0033 U	0.0014	0.00033 U	0.00032 U
PCBs (µg/L) ⁽⁵⁾								
None Detected								

TABLE 7

**SUMMARY OF DETECTED ANALYTICAL RESULTS - SURFACE WATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY PENNSYLVANIA**

Sample ID	USEPA Water Quality Standards			81-SW01	87-SW01	89-SW01	56-SW01	56-SW01D
Date	CCC	CMC	HHC	9/20/2022	9/21/2022	9/21/2022	9/26/2022	9/26/2022
Total Metals (µg/L) ⁽⁶⁾								
Aluminum	NE	750	NE	49 J	330	41 U	72 J	61 J
Arsenic	150	340	10	8.3 U	11	8.3 U	8.3 U	8.3 U
Barium	4,100	21,000	2400	27 J	100 J	52 J	25 J	25 J
Cadmium	0.27	2.13	NE	0.3 U	3.3 J	1.6 J	0.3 U	0.3 U
Calcium	NE	NE	NE	65000	92000	100000	22000	22000
Chromium	11.43	16.29	NE	5.5	25	1.6 U	1.6 U	1.6 U
Cobalt	19	95		22 J	45 J	1.9 U	1.9 U	1.9 U
Copper	9.33	14.00	NE	59	21 J	2.2 U	2.2 U	2.2 U
Iron	1,500	NE	NE	1500	68000	220	590	580
Lead	81.65	81.65	NE	4.5 J	20	4.4 U	4.4 U	4.4 U
Magnesium	NE	NE	NE	3700 J	21000	1800 J	3600 J	3500 J
Manganese	1,000	NE	NE	99	1800	15	13 J	13 J
Mercury	0.91	1.65	0.05	0.34	0.13 U	0.14 J	0.13 U	0.13 U
Nickel	52.16	469	610	10 J	370	2.4 J	1.9 U	1.9 U
Potassium	NE	NE	NE	11000	56000	18000	18000	18000
Sodium	NE	NE	NE	9100	430000	720000	14000	14000
Zinc	120	120	NE	20	500 B	19 JB	13 JB	13 JB

TABLE 7

**SUMMARY OF DETECTED ANALYTICAL RESULTS - SURFACE WATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY PENNSYLVANIA**

Sample ID Date	USEPA Water Quality Standards			81-SW01 9/20/2022	87-SW01 9/21/2022	89-SW01 9/21/2022	56-SW01 9/26/2022	56-SW01D 9/26/2022
	CCC	CMC	HHC					
Dissolved Metals (µg/L) ⁽⁷⁾								
Aluminum	200 ⁽⁸⁾	NE	NE	---	120 J	41 U	43 J	41 U
Arsenic	10 ⁽⁹⁾	10 ⁽¹⁰⁾	NE	---	9.3 J	8.3 U	8.3 U	8.3 U
Barium	2,000 ⁽⁹⁾	2,000 ⁽¹⁰⁾	2000	---	68 J	47 J	26 J	25 J
Cadmium	0.25	2.01	NE	---	0.3 U	0.98 J	0.3 U	0.3 U
Calcium	NE	NE	NE	---	84000	99000 FH	22000	23000
Chromium	11	16	NE	---	22	1.6 U	1.6 U	1.6 U
Cobalt	10 ⁽⁹⁾	29 ⁽¹⁰⁾	NE	---	42 J	1.9 U	1.9 U	1.9 U
Iron	300 ⁽⁸⁾	NE	NE	---	54000	72 U	100	110
Magnesium	NE	NE	NE	---	20000	1700 J	3600 J	3600 J
Manganese	300 ⁽⁹⁾	300 ⁽¹⁰⁾	NE	---	1600	2.4 U	11 J	10 J
Mercury	0.77	1.4	NE	---	0.18 J	0.24 F2	0.13 U	0.13 U
Nickel	52.01	468	NE	---	360	3 J	1.9 U	1.9 U
Potassium	NE	NE	NE	---	54000	17000	18000	18000
Sodium	NE	NE	NE	---	420000	650000 4	14000	14000
Zinc	118	117	NE	---	16 JB	11 JB	7.5 JB	5.7 JB
General Chemistry (mg/L)								
Acidity as CaCO ₃ to pH 8.3	NE	NE	NE	-128	-564	-42.7	-34.5	12
Chloride	250	NE	NE	9.97	228	1200	10.5	10.5
Nitrate as N	10	NE	NE	3.33	0.141 JH	0.178 J	0.12	0.114
pH (SU)	6.0-9.0	NE	NE	8 HF	7	8 HF	8.1 HF	8.1 HF
Specific Conductance (µmhos/cm)	NE	NE	NE	440 ^2	2500	4500 ^2	290	280
Sulfate	250	NE	NE	21.9	4.76	265	56.6	55.8
Total Alkalinity as CaCO ₃ to pH 4.5	20	NE	NE	180	910	70	54	53
Total Dissolved Solids	750	NE	NE	260	2000	2400	160	160
Turbidity (NTU)	NE	NE	NE	8.2	230	5.6	6.9	5.4

TABLE 7

**SUMMARY OF DETECTED ANALYTICAL RESULTS - SURFACE WATER
ERIE COKE SITE
CITY OF ERIE, ERIE COUNTY PENNSYLVANIA**

Notes/Qualifiers:

--- - Not Analyzed
% - percent
*+ - LCS and/or LCSD is outside acceptance limits; biased high
^2 - calibration blank (ICB and/or CCB) is outside acceptance limits
^c - CCV recovery is outside acceptance limits
µg/L - microgram per liter
µhos/cm - microhos per centimeter
B - analyte was found in the blank
CCB - Continuing Calibration Blank
CCC - Continuous Criteria Concentration
CCV - Continuing Calibration Verification
CMC - Criteria Maximum Concentration
F2 - MS/MSD RPD exceeds control limits
F2 - MS/MSD RPD exceeds control limits
FH - MS and/or MSD recovery above control limits
FL - MS and/or MSD recovery below control limits
FL - MS and/or MSD recovery below control limits
H - sample was prepped or analyzed beyond specified holding times
HHC - Human Health Criteria
ICB - Initial Calibration Blank

J - result is less than the RL but greater than or equal to the MDL; estimated
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MDL - Method Detection Limit
MS - Matrix Spike
MSC - Medium-Specific Concentration
MSD - Matrix Spike Duplicate
NE - Not Established
NTU - Nephelometric Turbidity Units
p - %RPD between the primary and confirmation column/detector is >40%; the lower volume has been reported
PADEP - Pennsylvania Department of Environmental Protection
PCB - Polychlorinated Biphenyl
RL - Reporting Limit
RPD - Relative Percent Difference
SMCL - Secondary Maximum Contaminant Level
SU - Standard Unit
SVOCs - Semi Volatile Organic Compounds
U - Not Detected
VOCs - Volatile Organic Compounds

Bold - Concentration is detected in the sample
Shaded - Detected concentration exceeds the USEPA Water Quality Criteria

- ⁽¹⁾ - 44 additional VOCs were analyzed for but not detected
- ⁽²⁾ - 56 additional SVOCs were analyzed for but not detected
- ⁽³⁾ - 4-Methylphenol used as a surrogate
- ⁽⁴⁾ - 17 additional pesticides were analyzed for but not detected
- ⁽⁵⁾ - 7 additional PCBs were analyzed for but not detected
- ⁽⁶⁾ - 6 additional total metals where analyzed for but not detected
- ⁽⁷⁾ - 8 additional dissolved metals were analyzed for but not detected
- ⁽⁸⁾ - SMCL
- ⁽⁹⁾ - PADEP Residential Groundwater MSC (Used Aquifer; TDS≤2500)
- ⁽¹⁰⁾ - PADEP Nonresidential Groundwater MSC (Used Aquifer; TDS≤2500)