Field Sampling Summary Report

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
FROM MONTGOMERY STREET TO EAST 15th STREET
BOROUGH OF MANHATTAN

NYCDDC PROJECT # SANDRESM1

Prepared for:

New York City Department of Design and Construction
Office of Environmental and Hazmat Services
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On behalf of:

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Prepared by:

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AES Project No. 0897

AUGUST 1, 2023

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1.0 INTRODUCTION

American Environmental Solutions, Inc. (AES) of Patchogue, New York, has been contracted by IPC Resiliency Partners (IPC) of Great Neck, New York, as their project environmental consultant to prepare a Field Sampling Summary Report (FSSR) for the New York City Department of Design and Construction (NYCDDC) East Side Coastal Resiliency project (Project No. SANDRESM1) located in Manhattan, New York. This FSSR documents field sampling activities, soil screening, sample collection and analysis.

1.1 Project Description

The project work area extends approximately 1.5 miles along Manhattan's east side waterfront from East 15th Street to Montgomery Street, between FDR Drive and the East River. The site is primarily comprised of John V. Lindsay East River Park. This work area has been designated Project Area One. Due to the size and scope of the project, work areas have been delineated into Reaches A through J. The project location is shown on Figure 1.

The East Side Coastal Resiliency (ESCR) project involves construction of flood protection measures including installation of flood walls and closure structures. Project plans include construction of an above ground floodwall, a transition retaining wall, and installation of flood gates. The scope of work also includes infrastructure improvements to mitigate risk of flood damage including reconstruction of water mains and sewers. East River Park will be elevated nine feet and reconstructed, including existing park structures and recreational features, the amphitheater, track facility and tennis house. Proposed work also includes construction of new pedestrian bridges, street lighting and traffic work.

The infrastructure improvements will generate approximately 287,600 cubic yards (cy) of soil. Soils generated as part of the SANDRESM1 infrastructure activities will be managed as per applicable New York State Department of Environmental Conservation (NYSDEC) Part 375 Commercial Use Soil Cleanup Objectives (CSCOs) for road work areas and Restricted Residential Use SCOs (RRSCOs) for parkland and any additional specifications required by the DDC.

The excavation for infrastructure improvements will range from 4 feet to approximately 40 feet below grade (ftbg).

2.0 FIELD ACTIVITIES

AES performed soil sampling at the site on July 14, 2023. Eight soil samples were collected from stockpiled soil and from test pits. A description of soil samples collected is shown below:

- Samples FWPD-1, FWPD-2, FWPD-3 and FWPD-4 were collected from stockpiled spoils that were generated during installation of floodwall sheeting to depths of 40 ftbg.

- Samples JG-6 and JG-7 were collected from test pits excavated by hand to 3 ftbg in locations of proposed jet grout retention pits along the access road.

- Samples Oil-25A and Oil-25B were collected from test pits excavated by hand to 5 ftbg in Reach F along the oil static line.

Test pit logs are included in Appendix A.

2.1 Soil Sampling and Analysis

Soil samples were field screened using a photoionization detector (PID) and readings were recorded on boring logs**.** All PID readings collected during the field sampling events were 0.0 parts per million (ppm). One grab sample and one composite soil sample were collected from each boring and submitted for laboratory analysis.

Soil samples were placed into laboratory supplied sample jars and properly labeled. The soil samples were stored in a cooler with ice to preserve the samples at approximately 4° Celsius prior to and during sample shipment. A chain-of-custody was prepared prior to sample shipment

Soil samples were delivered in coolers to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut (NYSDOH ELAP # 11301) for analysis. All soil samples collected were analyzed for the following parameters:

- 40 CFR Part 261, Subpart C (Characteristics of Hazardous Waste)
- Ignitability (Method 1010);
- Corrosivity (Method 9045C);
- Reactivity (Chapter 7.3.2);
- Toxicity Characteristic Leaching Procedure (TCLP) VOC (Method 1311/8260);
- TCLP SVOC (Method 1311/8270);
- TCLP Pesticides (Method 1311/8081) (if required by the selected disposal facility);
- TCLP Herbicides (Method 1311/8151A);

- TCLP Metals (Method 1311/6010B/7470A);
- Polychlorinated biphenyls (PCBs) (Method 8082);
- Pesticides (Method 8081);
- Total Petroleum Hydrocarbons (TPH) (Method 8015);
- Extractable Petroleum Hydrocarbons (EPH);
- Target Analyte List Metals (TAL) (Method 6010);
- Target Compound List (TCL) VOCS (Method 8260) and SVOCS (Method 8270)

Laboratory analysis is included in Appendix B.

2.2 Analytical Results

Analytical laboratory results indicated several samples contained compounds in concentrations exceeding the NYSDEC Part 375 CSCOs and one sample (OIL-25A) contained a concentration of lead exceeding the RCRA Hazardous Waste Characteristic Regulatory Level. Compound exeedances are shown on Tables 1 and 2.

Comments:

- Analytical results compared to applicable criteria are presented in Tables 1 and 2. A number of sampling locations (FWPD-3, OIL-25A, OIL-25B) exhibited exceedances of CSCOs. Exceedances of CSCOs are highlighted in yellow on Table 2. Material exceeding CSCOs should not be reused as backfill on-site and should be transported off-site for disposal at a permitted disposal facility.

- The TCLP Lead result exceeded the RCRA Hazardous Waste Characteristic Regulatory Level of 5 milligrams per liter (mg/L) in soil sample OIL-25A at a concentration of 8.47 mg/L. TCLP results are summarized in Table 2.

3.0 CONCLUSIONS AND RECOMMENDATIONS

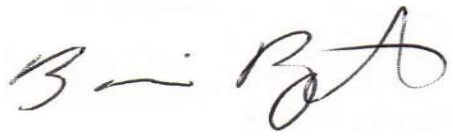
Based on review and evaluation of analytical data and field screening, the following findings, conclusions and recommendations are presented:

- Laboratory analytical results indicated soil sample OIL-25A exhibited evidence of hazardous waste characteristics for toxicity as discussed above and identified in Table 2. Upon commencement of the infrastructure improvement activities, the material should be properly disposed of at a USEPA approved RCRA-Part B TSDF facility. TCLP lead, barium and mercury concentrations detected in soil samples may be attributed to the presence of historic fill material in the subsurface.

- Contamination was found in a number of soil samples mentioned above and shown on Tables 1 and 2. Material exceeding CSCOs should not be used as backfill on-site and should be transported to a licensed, permitted facility for disposal pursuant to federal, state and local regulations. Non-native material such as historic fill should be transported off-site for disposal pursuant to Federal, State and local regulations.

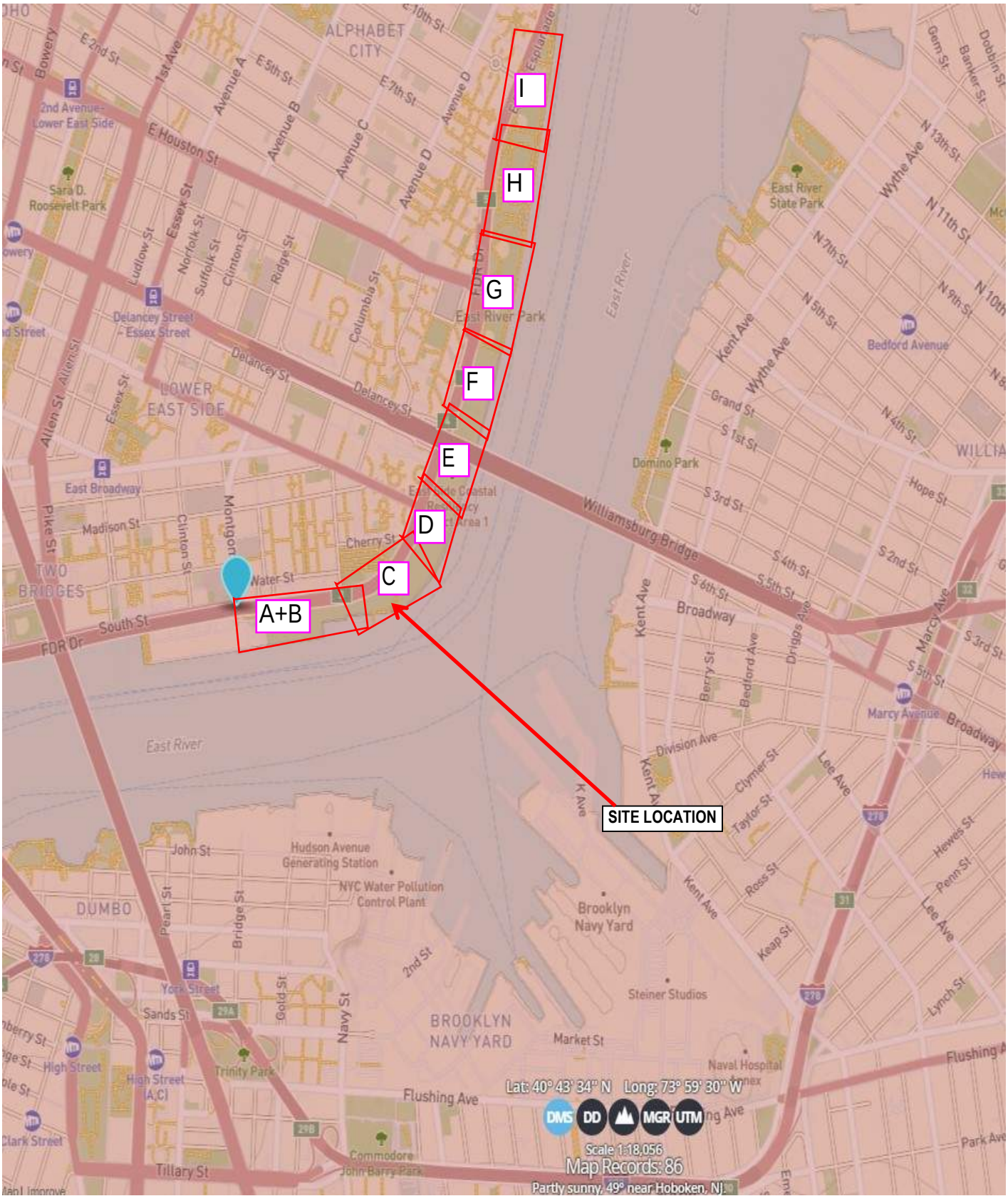
- The soil analytical results should be presented to disposal facilities for classification and acceptance in accordance with the individual permit requirements and State and Federal regulations.

Report prepared by:



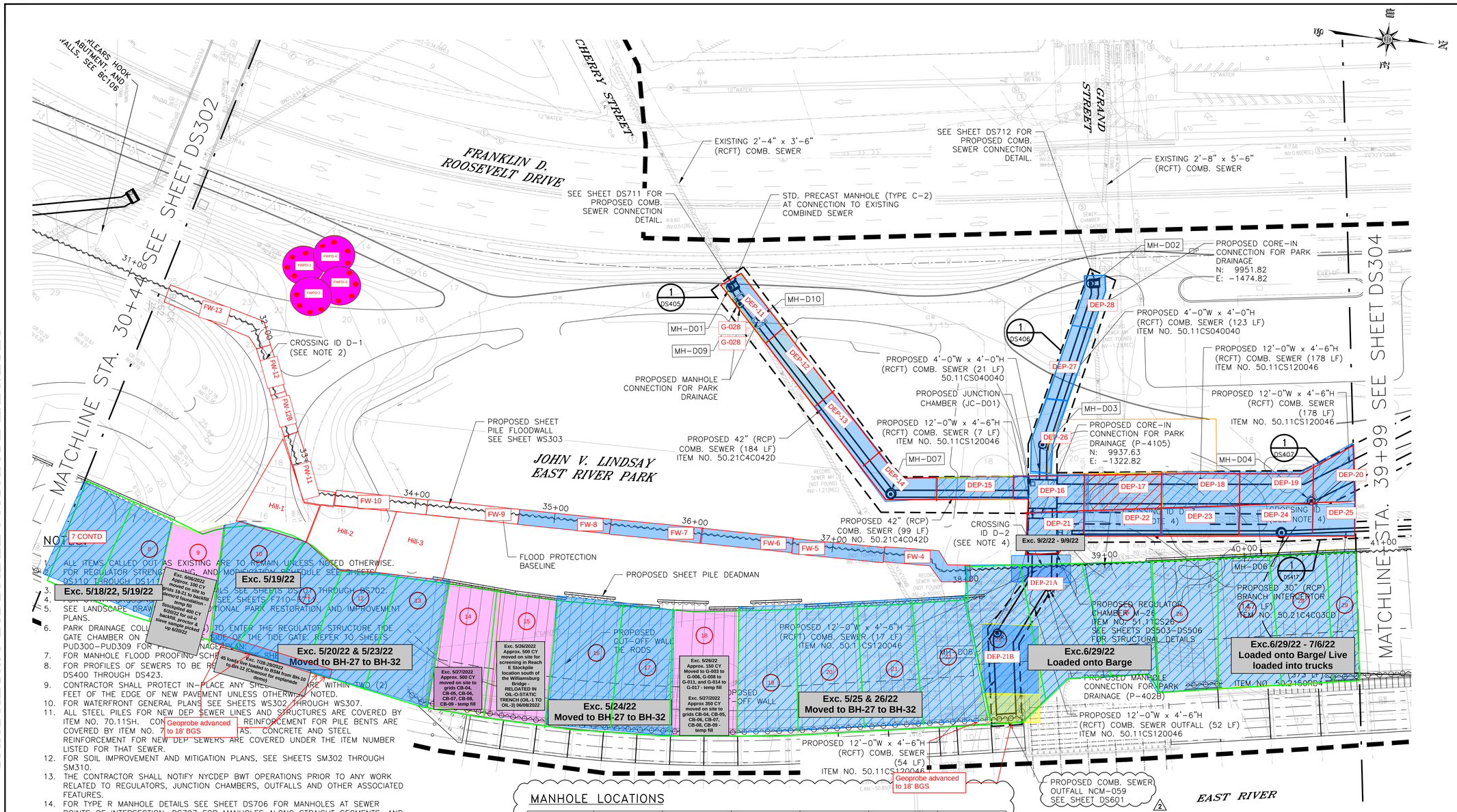
Brian Pendergast
Environmental Project Manager

FIGURES



Site Location Map **East Side Coastal Resiliency** **From Montgomery Street to 15th Street** **New York, NY**	AES Project No. 0897 Field Sampling Summary Report NTS Not to Scale	**Figure 1** **American Environmental Solutions, Inc.**

SANDRESM1 BIDDABLE PACKAGE 2/21/2020



NOTES:

1. ALL ITEMS CALLED OUT AS EXISTING ARE TO REMAIN UNLESS NOTED OTHERWISE.
2. FOR REGULATOR STRENGTHENING, AND MODIFICATIONS, SEE SHEETS DS110 THROUGH DS117.
3. FOR STRUCTURAL DETAILS SEE SHEETS DS501 THROUGH DS702.
4. FOR STRUCTURAL DETAILS SEE SHEETS F710-F711.
5. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL PARK RESTORATION AND IMPROVEMENT PLANS.
6. PARK DRAINAGE COLLECTED WILL TO ENTER THE REGULATOR STRUCTURE TIDE GATE CHAMBER ON THE INSIDE OF THE TIDE GATE. REFER TO SHEETS PUD300-PUD309 FOR PARK DRAINAGE PLAN.
7. FOR MANHOLE FLOOD PROOFING SCHEDULE SEE SHEET DS400 THROUGH DS423.
8. FOR PROFILES OF SEWERS TO BE RECONSTRUCTED SEE SHEETS DS711 THROUGH DS712.
9. CONTRACTOR SHALL PROTECT IN-PLACE ANY SITE STRUCTURE WITHIN TWO (2) FEET OF THE EDGE OF NEW PAVEMENT UNLESS OTHERWISE NOTED.
10. FOR WATERFRONT GENERAL PLANS SEE SHEETS WS302 THROUGH WS307.
11. ALL STEEL PILES FOR NEW DEP SEWER LINES AND STRUCTURES ARE COVERED BY ITEM NO. 70.11SH. CONCRETE REINFORCEMENT FOR PILE BENTS ARE COVERED BY ITEM NO. 70.11CS. CONCRETE AND STEEL REINFORCEMENT FOR NEW DEP SEWERS ARE COVERED UNDER THE ITEM NUMBER LISTED FOR THAT SEWER.
12. FOR SOIL IMPROVEMENT AND MITIGATION PLANS, SEE SHEETS SM302 THROUGH SM310.
13. THE CONTRACTOR SHALL NOTIFY NYCDEP BWT OPERATIONS PRIOR TO ANY WORK RELATED TO REGULATORS, JUNCTION CHAMBERS, OUTFALLS AND OTHER ASSOCIATED FEATURES.
14. FOR TYPE R MANHOLE DETAILS SEE SHEET DS706 FOR MANHOLES AT SEWER POINTS OF INTERSECTION, DS707 FOR MANHOLES ALONG STRAIGHT SEGMENTS, AND DS708 FOR MANHOLES WITH PARK DRAINAGE CONNECTIONS.

MANHOLE LOCATIONS

MANHOLE ID	TYPE	NORTHING	EASTING	RIM	INV.	ITEM NO.
MH-D01	CONNECTION	9691.55	-1461.86	15.19	-0.84	51.11V000
MH-D02	CONNECTION	9947.33	-1491.87	12.28	-0.94	51.11V000
MH-D03	TYPE R	9925.33	-1373.69	16.74	-1.08	51.21S0C2048C
MH-D04	TYPE R	10122.19	-1354.18	19.46	-0.89	51.21S0E2144C
MH-D05	MOD DP(TYPE II)	9940.13	-1272.67	18.21	-1.55	51.31D00200V
MH-D06	DEP B-2	10102.02	-1328.97	19.19	-3.48	51.21S0B2030R
MH-D07	STD. PC 6'ø	9821.06	-1326.98	17.10	-1.04	51.11P006
MH-D08	TYPE R	9907.25	-1236.12	16.01	-1.61	51.21S0E2144C
MH-D09	STD DP(TYPE II)	9699.51	-1451.17	15.50	-0.85	51.31S00242R
MH-D10	STD DP(TYPE II)	9714.81	-1443.33	15.80	-0.87	51.31S00242R

LEGEND:

INT. SWR.	INTERCEPTOR SEWER
STORM	STORM SEWER
VCP	VITREOUS CLAY PIPE
RCP	REINFORCED CONCRETE PIPE
RCFT	REINFORCED CONCRETE (FLAT TOP)
COMB. SEWER	COMBINED SEWER
UKN	UNKNOWN MATERIAL
INACC	MANHOLE WAS INACCESSIBLE
CSO	COMBINED SEWER OVERFLOW
DIP	DUCTILE IRON PIPE

MH-XXX — PROPOSED MANHOLE RISER

MH-XXX — PROPOSED MANHOLE

PROPOSED COMB. SEWER

LIMIT OF WORK

SCALE: 1" = 30'

FOR BID

SUBMITTED DATE: 2/21/2020

NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D
2	7-27-20	UPDATED DRAWING	ARCADIS	
1	6-30-20	UPDATED DRAWING	ARCADIS	

FINAL DESIGN SUBMITTED BY:
AKRF | KSE
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:
ARCADIS
ARCADIS OF NEW YORK, INC.
NAME OF CONSULTANT

STATE OF NEW YORK — IVAN C. STOODARD — 093992 — LICENSED PROFESSIONAL ENGINEER
SIGNATURE
DATE

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

DEP SEWER PLAN
SEGMENT 1 – REACH D
STA. 30+44 – 39+99

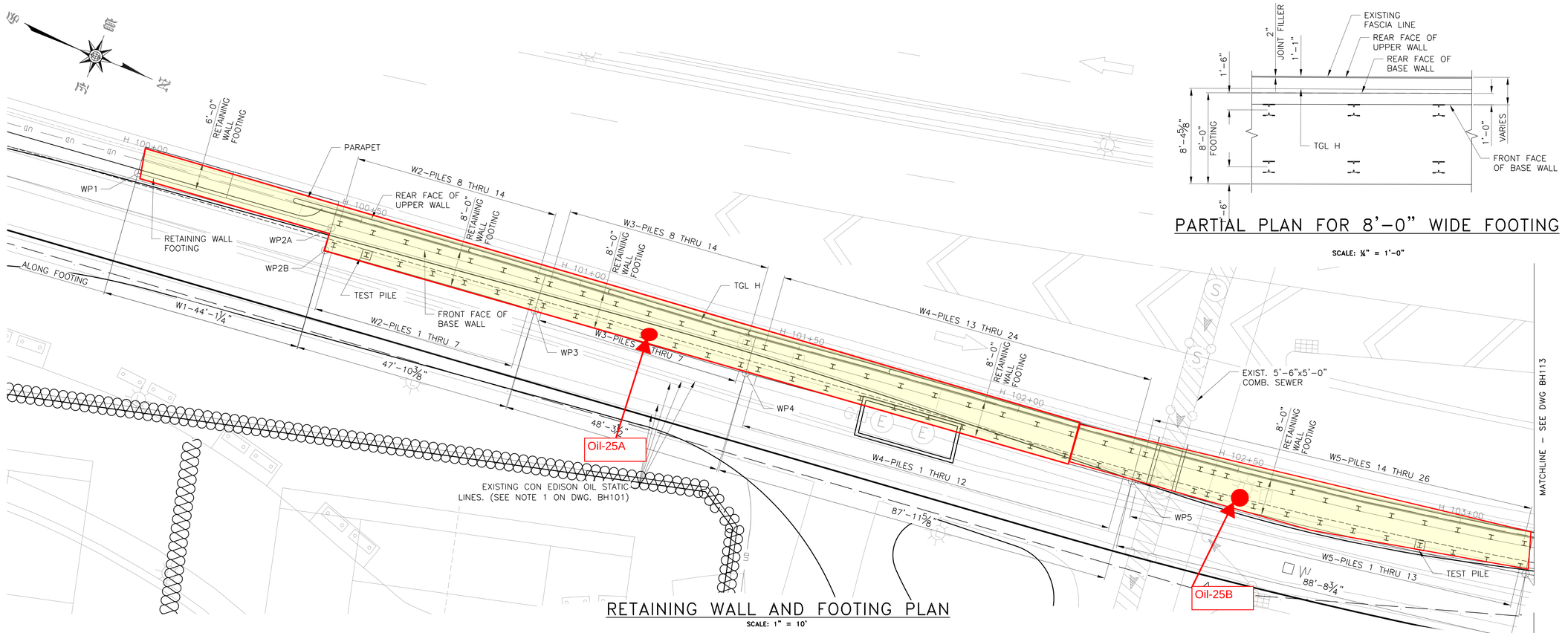
ARCADIS — DRAWN BY
SANDRESM1-DS303-00.DWG — CADD FILE

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20 | SHEET 1190 OF 2791 | DS303

CONSULTANT DESIGN

SANDRESM1 BIDDABLE PACKAGE 2/21/2020

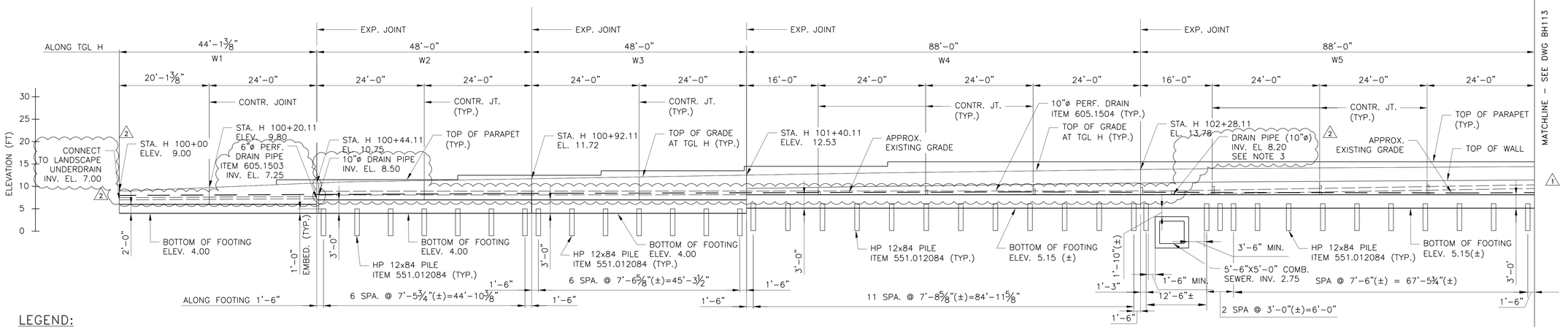


RETAINING WALL AND FOOTING PLAN

SCALE: 1" = 10'

PARTIAL PLAN FOR 8'-0" WIDE FOOTING

SCALE: ¼" = 1'-0"



RETAINING WALL AND FOOTING ELEVATION

SCALE: 1" = 10'

LEGEND:

- VERTICAL HP12x84 PILE
- TEST PILE
- 12.75" DIA. MICROPILE

NOTE:

1. FOR FOOTING SEGMENT WORKING POINTS SEE DWG. BH125.
2. FOR PILE NOS. SEE TABLES ON DWGS. BH126 AND BH127.
3. FOR DRAIN PIPE CONNECTION TO SEWER MANHOLE REFER TO THE PUD300 SERIES DRAWINGS.

FOR BID

SUBMITTED DATE: 2/21/2020

NO.	DATE	DESCRIPTIONS	BY	APPR'D
		REVISIONS		
2	12/1/22	REVISED PER RFI 307	AJW	
1	8/6/20	DRAWING REVISED	SP	

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HARDESTY & HANOVER, LLC
NAME OF CONSULTANT

SIGNATURE
DATE

STATE OF NEW YORK – REGISTERED – ARCHITECT – PROFESSIONAL ENGINEER

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

HOUSTON STREET BRIDGE
RETAINING WALL ELEVATION AND FOOTING PLAN 1 OF 5

HARDESTY & HANOVER, LLC — DRAWN BY
SANDRESM1-BH112-01.DWG — CADD FILE

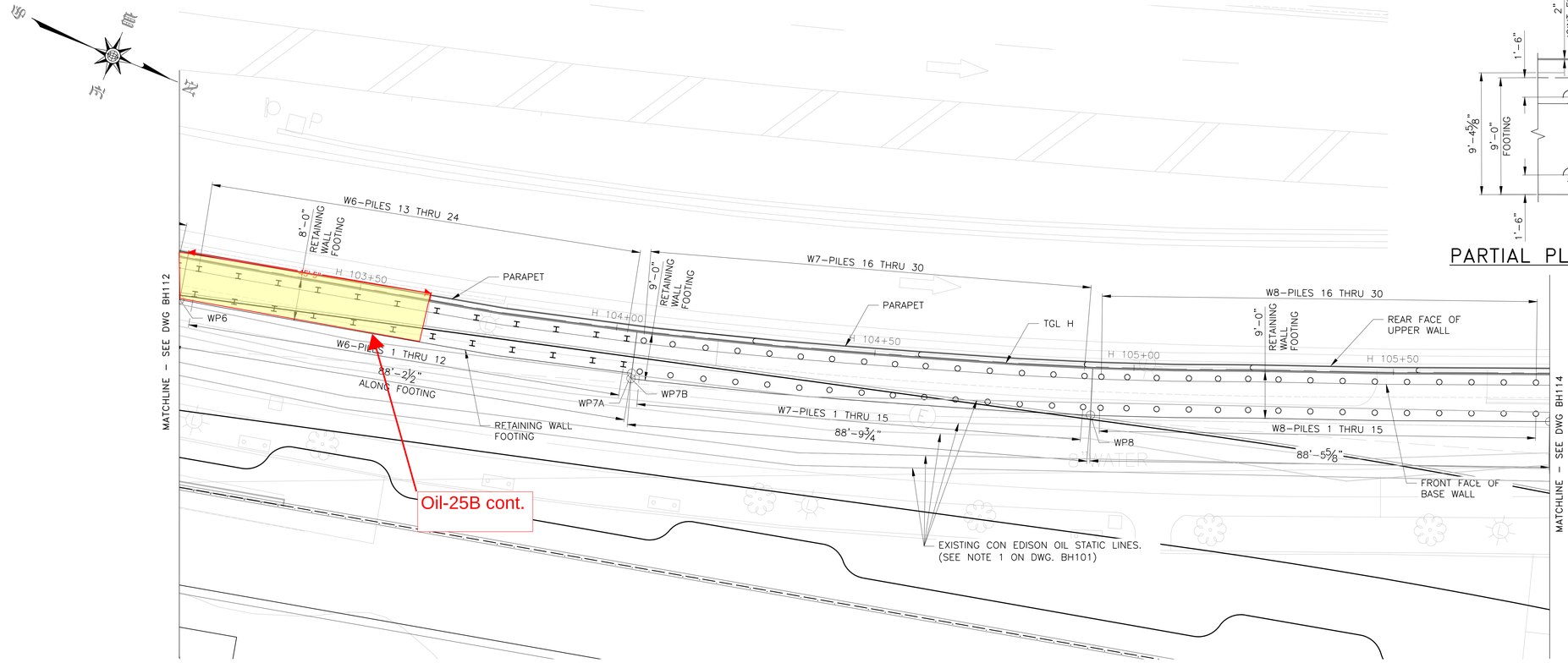
INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20

SHEET 509 OF 2791

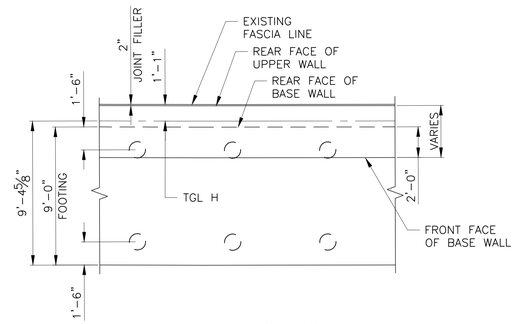
BH112

CONSULTANT DESIGN



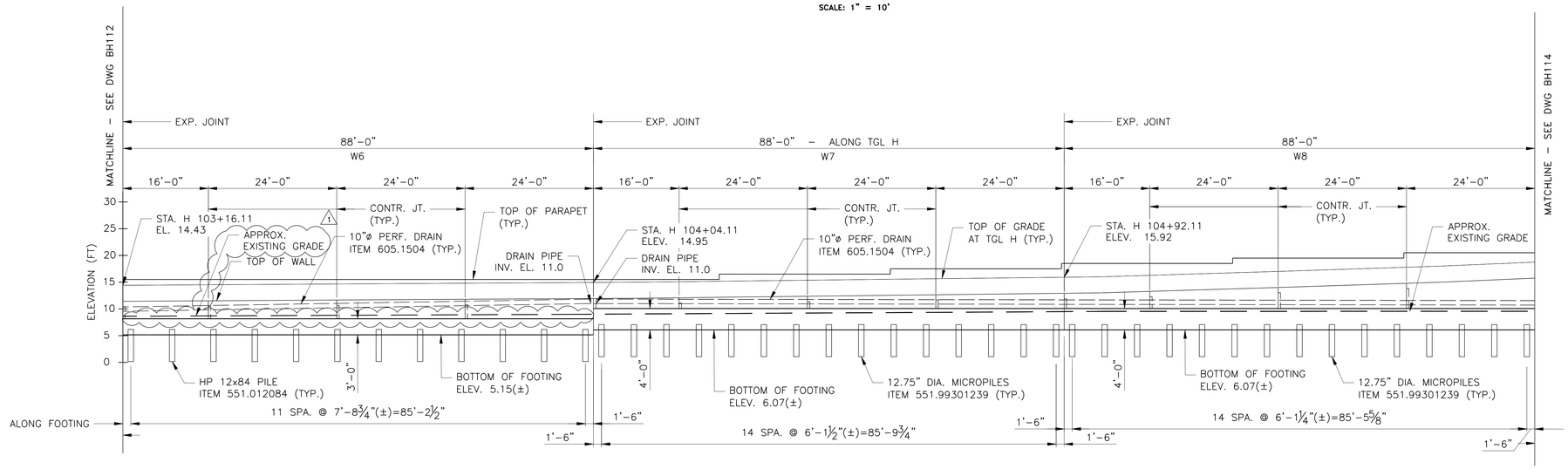
RETAINING WALL AND FOOTING PLAN

SCALE: 1" = 10'



PARTIAL PLAN FOR 9'–0" WIDE FOOTING

SCALE: ¼" = 1'–0"



RETAINING WALL AND FOOTING ELEVATION

SCALE: 1" = 10'

NOTES:

1. SEE DWG. BH112 FOR PILE LEGEND AND NOTES.

FOR BID

SUBMITTED DATE: 2/21/2020

NO.	DATE	DESCRIPTIONS	BY	APPR'D
1	08/06	DRAWING REVISED	SP	

REVISIONS

FINAL DESIGN SUBMITTED BY:
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HARDESTY & HANOVER, LLC
NAME OF CONSULTANT

SIGNATURE
DATE

CITY OF NEW YORK
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DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

HOUSTON STREET BRIDGE
RETAINING WALL ELEVATION AND FOOTING PLAN 2 OF 5

HARDESTY & HANOVER, LLC — DRAWN BY
SANDRESM1–BH113–00.DWG — CADD FILE

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

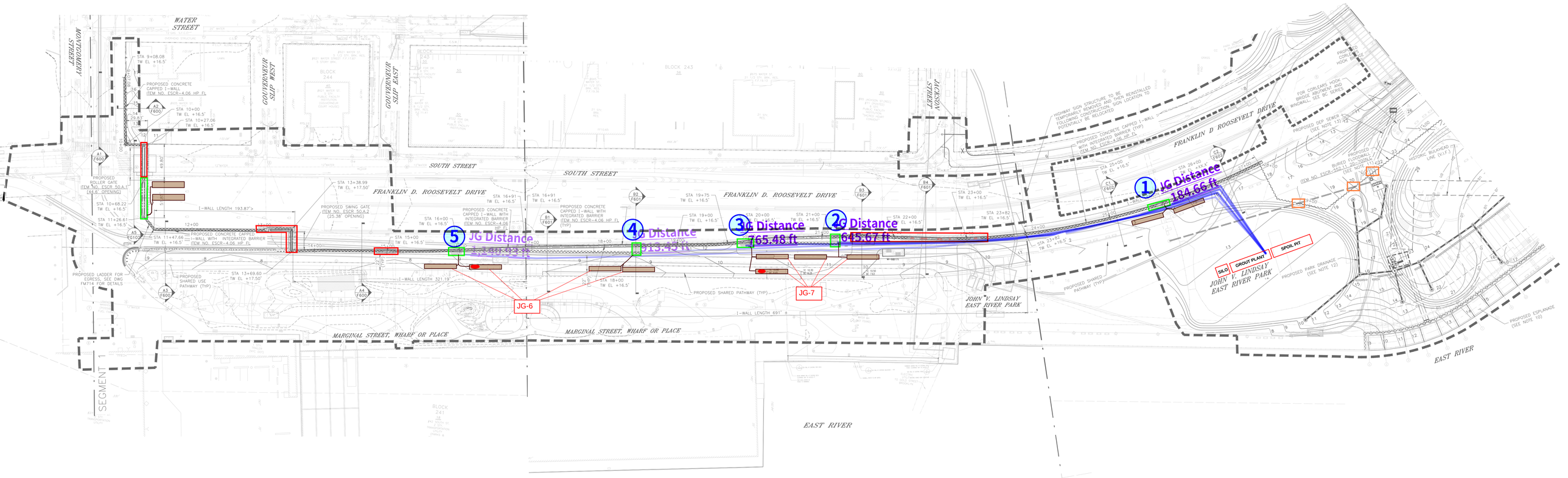
CAPITAL PROJECT NO. SANDRESM1 2/21/20

SHEET 510 OF 2791

BH113

CONSULTANT DESIGN

JET GROUTING LOCATION PLAN
PHASE 1



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TABLES

EAST SIDE COASTAL RESILIENCY FROM MONTGOMERY STREET TO EAST 15TH STREET, MANHATTAN
NYCDDC PROJECT SANDRESM1
IPC RESILIENCY PARTNERS
TABLE 1: SUMMARY OF SOIL ANALYSIS - SAMPLES COLLECTED 7/14/2023

Parameter	Compounds Detected	Unit	NYSDEC Part 375 Commercial Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives	FWPD-1	FWPD-2	FWPD-3	FWPD-4	JG-6	JG-7	OIL-25B	OIL-25A
PCBs	None detected	ppm	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/Herbicides	4,4-DDD	ppm	92	13	ND	ND	ND	ND	ND	ND	ND	ND
	4,4-DDE	ppm	62	8.9	ND	0.0069	0.0069	ND	0.014	ND	ND	ND
	4,4-DDT	ppm	47	7.9	ND	0.0072	0.0065	ND	ND	ND	ND	0.008
	a-Chlordane	ppm	24	4.2	0.0075	ND	ND	ND	ND	ND	ND	ND
	g-Chlordane	ppm	NS	NS	0.0051	ND	ND	ND	ND	ND	ND	ND
TAL Metals	Aluminum	ppm	NS	NS	8470	7630	9800	7550	12,100	3350	8030	2770
	Antimony	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	ppm	16	16	1.72	4.03	3.94	4.41	12.6	1.15	4.79	**28.7**
	Barium	ppm	400	400	111	74.5	91.8	86.2	55.4	27.6	228	347
	Beryllium	ppm	590	72	.38	.35	.48	.39	.36	ND	.44	ND
	Cadmium	ppm	9.3	4.3	0.97	0.93	0.9	1.04	1	.59	1.25	1.69
	Calcium	ppm	NS	NS	11,100	36,200	57,500	34,100	1,820	8670	20,000	6350
	Chromium	ppm	1500	180	24.9	26.7	23.2	23.9	17.3	7.98	19.4	19.9
	Hexvalent Chromium	ppm	400	110	ND	ND	ND	ND	ND	ND	ND	ND
	Trivalent Chromium	ppm	1500	180	24.9	26.7	23.2	23.9	17.3	7.98	19.4	19.9
	Cobalt	ppm	NS	NS	10.6	7.01	7.13	7.15	4.57	3.85	7.23	6.45
	Copper	ppm	270	270	25.8	44.7	40	46.8	26.3	15.4	84.2	**675**
	Iron	ppm	NS	NS	21,800	15,500	16,900	18,600	15,100	11,100	17,900	20,500
	Lead	ppm	1000	400	46.2	75.9	58.8	159	62.4	19.2	375	**2250**
	Manganese	ppm	10,000	2000	313	235	228	325	189	287	351	96
	Magnesium	ppm	NS	NS	8500	6410	14,400	6,000	1,480	4,590	7510	2650
	Mercury	ppm	2.8	0.81	0.11	0.17	0.21	**.93**	ND	ND	.66	**4.68**
	Nickel	ppm	310	310	21.1	16.5	17.2	20.4	12.3	7.42	18.2	18.8
	Silver	ppm	1500	180	ND	ND	ND	ND	ND	ND	ND	ND
	Sodium	ppm	NS	NS	1180	703	953	1420	161	156	431	374
	Potassium	ppm	NS	NS	3660	1450	1460	1500	524	408	1640	374
	Vanadium	ppm	NS	NS	29.6	29.4	30	39.5	33.2	18.7	32.4	23.2
	Zinc	ppm	10,000	10,000	74.7	78.7	67.6	94.8	92.3	27.9	253	569
Semi-Volatile Organic Compounds	1,1-Biphenyl	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	.42
	2-Methylnapthalene	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	1.2
	Acenapthene	ppm	500	100	ND	ND	.33	.3	ND	ND	ND	4.3
	Acenapthylene	ppm	500	100	ND	ND	ND	ND	ND	ND	.34	1.6
	Anthracene	ppm	500	100	.31	.64	.77	.48	ND	ND	1.0	6.7
	Benz(a)anthracene	ppm	5.6	1	.61	.9	**1.4**	.86	.33	ND	**1.7**	**20**
	Benzo(a)pyrene	ppm	1	1	.53	.87	**1.3**	.9	.36	.26	**1.7**	**23**
	Benzo(b)fluoranthene	ppm	5.6	1	.58	1	**1.5**	1	.4	.3	**1.8**	**23**
	Benzo(ghi)perylene	ppm	500	100	ND	.58	.66	.56	ND	ND	1.2	7.9
	Benzo(k)fluoranthene	ppm	56	3.9	ND	.37	.52	.38	ND	ND	.57	**4.8**
	Carbazole	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	3.6
	Chrysene	ppm	56	3.9	.57	.96	1.5	.89	.34	ND	1.8	**19**
	Dibenz(a,h)anthracene	ppm	0.56	.33	ND	ND	ND	ND	ND	ND	.21	**2.1**
	Dibenzofuran	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	2.9
	Fluoranthene	ppm	500	100	1.2	1.7	2.4	1.5	.68	.29	3.3	59
	Fluorene	ppm	500	100	ND	.26	.37	ND	ND	ND	ND	ND
	Indeno(1,2,3-cd)pyrene	ppm	5.6	0.5	.27	**.55**	**.67**	**.55**	ND	ND	**.97**	**9.3**
	Napthalene	ppm	500	100	.44	ND	ND	.39	ND	ND	ND	2.5
	Phenanthrene	ppm	500	100	.73	1.8	2.6	1.8	.49	ND	3.8	49
	Pyrene	ppm	500	100	1.3	1.5	2.1	1.4	.61	.31	4.5	52
Cyanide	Cyanide	ppm	27	27	ND	ND	ND	ND	ND	ND	ND	1.8
Volatile Organic Compounds	p-Isopropyltoluene	ppm	NS	NS	ND	ND	0.27	ND	ND	ND	ND	ND
	Acetone	ppm	500	100	ND	0.084	0.089	ND	ND	ND	ND	ND
	Carbon disulfide	ppm	NS	NS	ND	ND	ND	0.0063	ND	ND	ND	ND
EPH	>C28-C40	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	910
	C9-C28	ppm	NS	NS	19	ND	ND	ND	ND	ND	ND	2000
	Total EPH	ppm	NS	NS	19	ND	ND	ND	ND	ND	ND	2910
TPH	DRO	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	940
	GRO	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND Not detected
NS No regulatory criteria available
Green highlighted concentrations exceed NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives
Yellow highlighted concentrations exceed NYSDEC Part 375 Restricted Residential and Commerical Soil Cleanup Objectives

EAST SIDE COASTAL RESILIENCY FROM MONTGOMERY STREET TO EAST 15TH STREET, MANHATTAN
NYCDDC PROJECT SANDRESM1
IPC RESILIENCY PARTNERS
TABLE 2: SUMMARY OF TCLP & RCRA ANALYSIS - SAMPLES COLLECTED 7/14/2023

Parameter	Compounds Detected	Unit	Regulatory Criteria	FWPD-1	FWPD-2	FWPD-3	FWPD-4	JG-6	JG-7	OIL-25B	OIL-25A
RCRA Characteristics	pH	pH units	<2 or >12.5	8.21	11.8	11.9	11.2	7.66	8.57	8.76	7.89
	Flashpoint	º F	>200º F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F	>200°F
	Ignitability	º F	<140º F	passed	passed	passed	passed	passed	passed	passed	passed
	Reactivity - Cyanide	ppm	_	ND	ND	ND	ND	ND	ND	ND	ND
	Reactivity - Sulfide	ppm	_	ND	ND	ND	ND	ND	ND	ND	ND
TOXICITY		**Unit**	**USEPA Toxicity Characteristic Regulatory Criteria**	**FWPD-1**	**FWPD-2**	**FWPD-3**	**FWPD-4**	**JG-6**	**JG-7**	**OIL-25B**	**OIL-25A**
TCLP Metals	Barium	mg/L	100	0.47	0.39	0.51	0.36	0.19	0.3	0.75	0.79
	Mercury	mg/L	0.2	ND	ND	ND	0.0008	ND	ND	ND	ND
	Lead	mg/L	5	ND	ND	0.22	ND	ND	ND	0.17	**8.47**
TCLP VOCs	None Detected	_	_	ND	ND	ND	ND	ND	ND	ND	ND
TCLP SVOCs	None Detected	_	_	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Pests/Herbicides	None Detected	_	_	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
NS No regulatory criteria available
ND Not detected
Yellow highlighted concentrations and boring locations exceed hazardous waste regulatory criteria.

42 West Avenue, Patchogue, NY 11772
(631) 475-0020/(631) 475-0025 fax

APPENDIX A

TEST PIT LOGS

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	OIL-25A
		Date:	7/14/2023
		Weather:	Sunny, 76 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	Reach F along oil static line		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	5 ftbg	Date Completed:	7/14/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Dark brown soil with some brick and gravel
2		0.0	Dark brown soil with some brick and gravel
3		0.0	Dark brown soil with some brick and gravel
4		0.0	Dark brown soil with some brick and gravel
5		0.0	Dark brown soil with some brick and gravel

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	OIL-25B
		Date:	7/14/2023
		Weather:	Sunny, 76 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	Reach F along oil static line		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	5 ftbg	Date Completed:	7/14/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Dark brown soil with some brick and gravel
2		0.0	Dark brown soil with some brick and gravel
3		0.0	Dark brown soil with some brick and gravel
4		0.0	Dark brown soil with some brick and gravel
5		0.0	Dark brown soil with some brick and gravel

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	JG-6
		Date:	7/14/2023
		Weather:	Sunny, 76 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	Along access road, in location of proposed jet grout retention pits		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	3 ftbg	Date Completed:	7/14/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Light brown sand and dark brown soil
2		0.0	Light brown sand and dark brown soil
3		0.0	Light brown sand and dark brown soil

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	JG-7
		Date:	7/14/2023
		Weather:	Sunny, 76 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	Along access road, in location of proposed jet grout retention pits		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	3 ftbg	Date Completed:	7/14/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Light brown sand and dark brown soil
2		0.0	Light brown sand and dark brown soil
3		0.0	Light brown sand and dark brown soil

APPENDIX B

LABORATORY ANALYSIS

Wednesday, July 26, 2023

Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Project ID: **EAST SIDE COASTAL RESILIENCY**
SDG ID: **GCO52178**
Sample ID#s: CO52178 - CO52185

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

SDG Comments

July 26, 2023

SDG I.D.: GCO52178

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

July 26, 2023

SDG I.D.: GCO52178

Project ID: EAST SIDE COASTAL RESILIENCY

Client Id	Lab Id	Matrix
FWPD-1	CO52178	SOIL
FWPD-2	CO52179	SOIL
FWPD-3	CO52180	SOIL
FWPD-4	CO52181	SOIL
JG-6	CO52182	SOIL
JG-7	CO52183	SOIL
OIL-25B	CO52184	SOIL
OIL-25A	CO52185	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	7:45
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52178

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	8470	55	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	1.72	0.73	mg/Kg	1	07/19/23	IE	SW6010D
Barium	111	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.38	0.29	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	11100	5.5	mg/Kg	1	07/19/23	IE	SW6010D
Cadmium	0.97	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	10.6	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	24.9	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Copper	25.8	0.7	mg/kg	1	07/19/23	IE	SW6010D
Iron	21800	55	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	0.11	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	3660	55	mg/Kg	10	07/19/23	IE	SW6010D
Magnesium	8500	55	mg/Kg	10	07/19/23	IE	SW6010D
Manganese	313	3.6	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	1180	5.5	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	21.1	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Lead	46.2	0.36	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 3.6	3.6	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.47	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-1

Phoenix I.D.: CO52178

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.3	3.3	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	24.9	0.36	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	29.6	0.36	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	74.7	0.7	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	88		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.41	0.41	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	8.21	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	126		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/17/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/17/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				07/17/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	9.1	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	19	18	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	19.0	9.1	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	108		%	1	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	77		%	1	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.2	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	98		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4-D	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	07/18/23	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	56		%	10	07/18/23	JRB	30 - 150 %
% DCAA (Confirmation)	67		%	10	07/18/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	57		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	07/19/23	SC	30 - 150 %
% TCMX	68		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	55		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDT	ND	2.2	ug/Kg	2	07/19/23	AW	SW8081B
a-BHC	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
a-Chlordane	7.5	3.7	ug/Kg	2	07/19/23	AW	SW8081B
Aldrin	ND	3.7	ug/Kg	2	07/19/23	AW	SW8081B
b-BHC	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Chlordane	ND	37	ug/Kg	2	07/19/23	AW	SW8081B
d-BHC	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Endrin	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	07/19/23	AW	SW8081B
g-Chlordane	5.1	3.7	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	07/19/23	AW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	07/19/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	07/19/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	75		%	2	07/19/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	59		%	2	07/19/23	AW	30 - 150 %	
% TCMX	65		%	2	07/19/23	AW	30 - 150 %	
% TCMX (Confirmation)	58		%	2	07/19/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	102		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	103		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	33		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	34		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	55		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	56		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	56	mg/Kg	1	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	50		%	1	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	83		%	1	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-1

Phoenix I.D.: CO52178

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	24	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	47	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	28	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.4	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	3.8	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	24	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	4.7	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	07/18/23	JLI	70 - 130 %

Project ID: EAST SIDE COASTAL RESILIENCY
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Phoenix I.D.: CO52178

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	100		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	71	ug/kg	1	07/18/23	JLI	SW8260C	
Volatiles								
1,2,3-Trichloropropane	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3-Dichloropropane	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Butylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Propylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
p-Isopropyltoluene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
sec-Butylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
tert-Butylbenzene	ND	4.7	ug/Kg	1	07/18/23	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	95		%	1	07/18/23	JLI	70 - 130 %	
% Bromofluorobenzene	100		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	07/18/23	MH	70 - 130 %	
% Bromofluorobenzene (10x)	97		%	10	07/18/23	MH	70 - 130 %	
% Dibromofluoromethane (10x)	100		%	10	07/18/23	MH	70 - 130 %	
% Toluene-d8 (10x)	96		%	10	07/18/23	MH	70 - 130 %	
Volatile Library Search	Completed				07/18/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	450	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	310	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	610	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	530	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	580	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	570	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	740	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	1200	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluorene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobutadiene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-1

Phoenix I.D.: CO52178

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	270	260	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	440	260	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	730	260	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	1300	260	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	99		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	63		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	83		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	74		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	66		%	1	07/18/23	KCA	30 - 130 %
TCLP Acid/Base-Neutral							
1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	95		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	65		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	68		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	52		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	86		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	7:40
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52179

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	7630	60	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	4.03	0.79	mg/Kg	1	07/19/23	IE	SW6010D
Barium	74.5	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.35	0.32	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	36200	60	mg/Kg	10	07/19/23	IE	SW6010D
Cadmium	0.93	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	7.01	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	26.7	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Copper	44.7	0.8	mg/kg	1	07/19/23	IE	SW6010D
Iron	15500	60	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	0.17	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	1450	60	mg/Kg	10	07/19/23	IE	SW6010D
Magnesium	6410	60	mg/Kg	10	07/19/23	IE	SW6010D
Manganese	235	4.0	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	703	6.0	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	16.5	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Lead	75.9	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 4.0	4.0	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.39	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-2

Phoenix I.D.: CO52179

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.6	3.6	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	26.7	0.40	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	29.4	0.40	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	78.7	0.8	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	90		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.38	0.38	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	11.8	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	-62.5		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/17/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/20/23	MO/F	SW3546	
Soil Extraction for Pesticides	Completed				07/20/23	MO/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/20/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/20/23	S/S	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	44	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	88	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	44	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	42		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	52		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.5	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	92		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4-D	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A	

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2,4-DB	ND	2800	ug/Kg	10	07/18/23	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	51		%	10	07/18/23	JRB	30 - 150 %
% DCAA (Confirmation)	62		%	10	07/18/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1221	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1232	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1242	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1248	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1254	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1260	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1262	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
PCB-1268	ND	72	ug/Kg	2	07/21/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	66		%	2	07/21/23	SC	30 - 150 %
% DCBP (Confirmation)	63		%	2	07/21/23	SC	30 - 150 %
% TCMX	69		%	2	07/21/23	SC	30 - 150 %
% TCMX (Confirmation)	68		%	2	07/21/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	07/21/23	AW	SW8081B
4,4' -DDE	6.9	2.2	ug/Kg	2	07/21/23	AW	SW8081B
4,4' -DDT	7.2	2.2	ug/Kg	2	07/21/23	AW	SW8081B
a-BHC	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
a-Chlordane	ND	3.6	ug/Kg	2	07/21/23	AW	SW8081B
Aldrin	ND	3.6	ug/Kg	2	07/21/23	AW	SW8081B
b-BHC	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Chlordane	ND	36	ug/Kg	2	07/21/23	AW	SW8081B
d-BHC	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Endrin	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	07/21/23	AW	SW8081B
g-Chlordane	ND	3.6	ug/Kg	2	07/21/23	AW	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	07/21/23	AW	SW8081B
Methoxychlor	ND	36	ug/Kg	2	07/21/23	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	07/21/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	94		%	2	07/21/23	AW	30 - 150 %

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% DCBP (Confirmation)	62		%	2	07/21/23	AW	30 - 150 %	
% TCMX	78		%	2	07/21/23	AW	30 - 150 %	
% TCMX (Confirmation)	55		%	2	07/21/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	106		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	112		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/24/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/24/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/24/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	07/24/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	60		%	10	07/24/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	56		%	10	07/24/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	54		%	10	07/24/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	54		%	10	07/24/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	270	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Interference		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	136		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	9.5	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	9.5	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	9.5	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	9.5	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	9.5	ug/kg	1	07/18/23	JLI	SW8260C	

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1,2,3-Trichlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND		48	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND		48	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	84	S	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND		57	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND		19	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND		7.6	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND		48	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND		9.5	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	96			%	1	07/18/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	98		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	78		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	100	ug/kg	1	07/18/23	JLI	SW8260C	
Volatiles								
1,2,3-Trichloropropane	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3-Dichloropropane	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Butylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Propylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
p-Isopropyltoluene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
sec-Butylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
tert-Butylbenzene	ND	9.5	ug/Kg	1	07/18/23	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	96		%	1	07/18/23	JLI	70 - 130 %	
% Bromofluorobenzene	98		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	78		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	100		%	10	07/18/23	MH	70 - 130 %	
% Bromofluorobenzene (10x)	97		%	10	07/18/23	MH	70 - 130 %	
% Dibromofluoromethane (10x)	99		%	10	07/18/23	MH	70 - 130 %	
% Toluene-d8 (10x)	98		%	10	07/18/23	MH	70 - 130 %	
Volatile Library Search	Completed				07/18/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	

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2,4-Dimethylphenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	570	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	570	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	430	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	570	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	570	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1000	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	640	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	900	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	870	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	1000	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	580	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	370	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	960	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	720	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	1700	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluorene	260	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobutadiene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	

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Client ID: FWPD-2

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	550	250	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	1800	250	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	1500	250	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	66		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	39		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	78		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	66		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	55		%	1	07/18/23	KCA	30 - 130 %
TCLP Acid/Base-Neutral							
1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	55		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	59		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	44		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	78		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Project ID: EAST SIDE COASTAL RESILIENCY
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

TPH Comment:
The sample chromatorgram exhibited non-DRO material outside the C10-C28 range.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	7:35
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52180

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	9800	53	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	3.94	0.71	mg/Kg	1	07/19/23	IE	SW6010D
Barium	91.8	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.48	0.28	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	57500	53	mg/Kg	10	07/19/23	IE	SW6010D
Cadmium	0.90	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	7.13	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	23.2	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Copper	40.0	0.7	mg/kg	1	07/19/23	IE	SW6010D
Iron	16900	53	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	0.21	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	1460	53	mg/Kg	10	07/19/23	IE	SW6010D
Magnesium	14400	53	mg/Kg	10	07/19/23	IE	SW6010D
Manganese	228	3.5	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	953	5.3	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	17.2	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Lead	58.8	0.35	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 3.5	3.5	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.51	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	0.22	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-3

Phoenix I.D.: CO52180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.2	3.2	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	23.2	0.35	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	30.0	0.35	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	67.6	0.7	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	86		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.41	0.41	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	11.9	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	-74.8		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.58	0.58	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/17/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/20/23	MO/F	SW3546	
Soil Extraction for Pesticides	Completed				07/20/23	MO/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	45	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	91	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	45	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	62		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	57		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	8.2	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	89		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4-D	ND	290	ug/Kg	10	07/18/23	JRB	SW8151A	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-DB	ND	2900	ug/Kg	10	07/18/23	JRB	SW8151A	
Dalapon	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
Dicamba	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
Dichloroprop	ND	290	ug/Kg	10	07/18/23	JRB	SW8151A	
Dinoseb	ND	290	ug/Kg	10	07/18/23	JRB	SW8151A	
QA/QC Surrogates								
% DCAA	33		%	10	07/18/23	JRB	30 - 150 %	
% DCAA (Confirmation)	29		%	10	07/18/23	JRB	30 - 150 %	3

Polychlorinated Biphenyls

PCB-1016	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1221	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1232	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1242	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1248	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1254	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1260	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1262	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
PCB-1268	ND	77	ug/Kg	2	07/21/23	SC	SW8082A	
QA/QC Surrogates								
% DCBP	61		%	2	07/21/23	SC	30 - 150 %	
% DCBP (Confirmation)	60		%	2	07/21/23	SC	30 - 150 %	
% TCMX	64		%	2	07/21/23	SC	30 - 150 %	
% TCMX (Confirmation)	64		%	2	07/21/23	SC	30 - 150 %	

Pesticides - Soil

4,4' -DDD	ND	2.3	ug/Kg	2	07/21/23	AW	SW8081B	
4,4' -DDE	6.9	2.3	ug/Kg	2	07/21/23	AW	SW8081B	
4,4' -DDT	6.5	2.3	ug/Kg	2	07/21/23	AW	SW8081B	
a-BHC	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
a-Chlordane	ND	3.8	ug/Kg	2	07/21/23	AW	SW8081B	
Aldrin	ND	3.8	ug/Kg	2	07/21/23	AW	SW8081B	
b-BHC	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Chlordane	ND	38	ug/Kg	2	07/21/23	AW	SW8081B	
d-BHC	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Dieldrin	ND	3.8	ug/Kg	2	07/21/23	AW	SW8081B	
Endosulfan I	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Endosulfan II	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Endosulfan sulfate	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Endrin	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Endrin aldehyde	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Endrin ketone	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
g-BHC	ND	1.5	ug/Kg	2	07/21/23	AW	SW8081B	
g-Chlordane	ND	3.8	ug/Kg	2	07/21/23	AW	SW8081B	
Heptachlor	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Heptachlor epoxide	ND	7.7	ug/Kg	2	07/21/23	AW	SW8081B	
Methoxychlor	ND	38	ug/Kg	2	07/21/23	AW	SW8081B	
Toxaphene	ND	150	ug/Kg	2	07/21/23	AW	SW8081B	
QA/QC Surrogates								
% DCBP	86		%	2	07/21/23	AW	30 - 150 %	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	57		%	2	07/21/23	AW	30 - 150 %	
% TCMX	73		%	2	07/21/23	AW	30 - 150 %	
% TCMX (Confirmation)	46		%	2	07/21/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	106		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	109		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	56		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	58		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	63		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	66		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	66		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	72		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	6.8	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	6.8	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.8	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	6.8	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	6.8	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-3

Phoenix I.D.: CO52180

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND		34	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND		34	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	89	S	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND		41	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND		14	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND		5.4	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND		34	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND		6.8	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100			%	1	07/18/23	JLI	70 - 130 %

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Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-3

Phoenix I.D.: CO52180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	95		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	75		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	91		%	1	07/18/23	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	100	ug/kg	1	07/18/23	JLI	SW8260C
Volatiles							
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
p-Isopropyltoluene	270	240	ug/Kg	50	07/18/23	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	07/18/23	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	75		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	91		%	1	07/18/23	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	07/18/23	JLI	70 - 130 %
% Bromofluorobenzene (50x)	98		%	50	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane (50x)	98		%	50	07/18/23	JLI	70 - 130 %
% Toluene-d8 (50x)	92		%	50	07/18/23	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (10x)	100		%	10	07/18/23	MH	70 - 130 %
% Bromofluorobenzene (10x)	97		%	10	07/18/23	MH	70 - 130 %
% Dibromofluoromethane (10x)	99		%	10	07/18/23	MH	70 - 130 %
% Toluene-d8 (10x)	98		%	10	07/18/23	MH	70 - 130 %
Volatile Library Search	Completed				07/18/23	JLI	
Semivolatiles							
1,1-Biphenyl	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D

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Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-3

Phoenix I.D.: CO52180

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	330	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	770	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	1400	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	1300	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	1500	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	660	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	520	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	1500	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	2400	270	ug/Kg	1	07/18/23	KCA	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluorene	370	270	ug/Kg	1	07/18/23	KCA	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	670	270	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	2600	270	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	2100	270	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	74		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	44		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	91		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	77		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	65		%	1	07/18/23	KCA	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	61		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	57		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	59		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	46		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	77		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

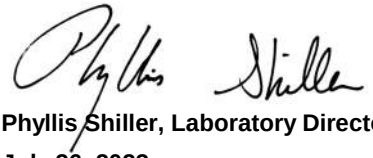
Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	7:30
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52181

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FWPD-4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	7550	59	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	4.41	0.79	mg/Kg	1	07/19/23	IE	SW6010D
Barium	86.2	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.39	0.32	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	34100	59	mg/Kg	10	07/19/23	IE	SW6010D
Cadmium	1.04	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	7.15	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	23.9	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Copper	46.8	0.8	mg/kg	1	07/19/23	IE	SW6010D
Iron	18600	59	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	0.93	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	1500	59	mg/Kg	10	07/19/23	IE	SW6010D
Magnesium	6000	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Manganese	325	4.0	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	1420	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	20.4	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Lead	159	0.40	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 4.0	4.0	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.36	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	0.0008	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.6	3.6	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	23.9	0.40	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	39.5	0.40	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	94.8	0.8	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	89		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.40	0.40	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	11.2	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	-52.0		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/17/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/20/23	Y/MO	SW3546	
Soil Extraction for Pesticides	Completed				07/20/23	Y/MO/M	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	44	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	89	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	44	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	60		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	63		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.2	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	85		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A	
2,4-D	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	07/18/23	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	07/18/23	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	07/18/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	55		%	10	07/18/23	JRB	30 - 150 %
% DCAA (Confirmation)	67		%	10	07/18/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	34		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	34		%	2	07/19/23	SC	30 - 150 %
% TCMX	43		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	37		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	07/21/23	AW	SW8081B
4,4' -DDE	ND	3.0	ug/Kg	2	07/21/23	AW	SW8081B
4,4' -DDT	ND	2.2	ug/Kg	2	07/21/23	AW	SW8081B
a-BHC	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
a-Chlordane	ND	3.7	ug/Kg	2	07/21/23	AW	SW8081B
Aldrin	ND	3.7	ug/Kg	2	07/21/23	AW	SW8081B
b-BHC	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Chlordane	ND	37	ug/Kg	2	07/21/23	AW	SW8081B
d-BHC	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Endosulfan sulfate	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Endrin	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	07/21/23	AW	SW8081B
g-Chlordane	ND	3.7	ug/Kg	2	07/21/23	AW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	07/21/23	AW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	07/21/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	07/21/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	76		%	2	07/21/23	AW	30 - 150 %

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% DCBP (Confirmation)	105		%	2	07/21/23	AW	30 - 150 %	
% TCMX	54		%	2	07/21/23	AW	30 - 150 %	
% TCMX (Confirmation)	55		%	2	07/21/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	94		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	107		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	60		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	61		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	59		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	85		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	112		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	28	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	6.3	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	34	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	4.5	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	28	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	99		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	89		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	91		%	1	07/18/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	85	ug/kg	1	07/18/23	JLI	SW8260C	
Volatiles								
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3-Dichloropropane	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Butylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Propylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
p-Isopropyltoluene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
sec-Butylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
tert-Butylbenzene	ND	5.7	ug/Kg	1	07/18/23	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %	
% Bromofluorobenzene	99		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	89		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	91		%	1	07/18/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	101		%	10	07/18/23	MH	70 - 130 %	
% Bromofluorobenzene (10x)	97		%	10	07/18/23	MH	70 - 130 %	
% Dibromofluoromethane (10x)	101		%	10	07/18/23	MH	70 - 130 %	
% Toluene-d8 (10x)	97		%	10	07/18/23	MH	70 - 130 %	
Volatile Library Search	Completed				07/18/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
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Phoenix I.D.: CO52181

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	590	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	300	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	480	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	860	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	900	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	1000	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	560	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	380	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	660	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	890	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	740	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	1500	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluorene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobutadiene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	550	260	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	390	260	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	1800	260	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	260	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	1400	260	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	80		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	75		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	58		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	91		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	79		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/18/23	KCA	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	74		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	64		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	71		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	55		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	90		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	8:30
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52182

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	12100	59	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	12.6	0.78	mg/Kg	1	07/19/23	IE	SW6010D
Barium	55.4	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.56	0.31	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	1820	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Cadmium	1.00	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	4.57	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	17.3	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Copper	26.3	0.8	mg/kg	1	07/19/23	IE	SW6010D
Iron	15100	59	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	524	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Magnesium	1480	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Manganese	189	3.9	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	161	5.9	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	12.3	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Lead	62.4	0.39	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 3.9	3.9	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.19	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-6

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.5	3.5	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	17.3	0.39	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	33.2	0.39	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	92.3	0.8	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	85		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.44	0.44	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	7.66	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	239		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/18/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/17/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				07/17/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	9.2	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	18	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	9.2	mg/kg	1	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	136		%	1	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	131		%	1	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.0	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	90		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4-D	ND	290	ug/Kg	10	07/19/23	JRB	SW8151A	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-6

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	07/19/23	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A
Dichloroprop	ND	290	ug/Kg	10	07/19/23	JRB	SW8151A
Dinoseb	ND	290	ug/Kg	10	07/19/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	83		%	10	07/19/23	JRB	30 - 150 %
% DCAA (Confirmation)	94		%	10	07/19/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	77	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	45		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	51		%	2	07/19/23	SC	30 - 150 %
% TCMX	55		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	48		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDE	14	2.3	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	07/19/23	AW	SW8081B
a-BHC	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
b-BHC	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	07/19/23	AW	SW8081B
d-BHC	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	07/19/23	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	07/19/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	07/19/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	07/19/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	36		%	2	07/19/23	AW	30 - 150 %

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Client ID: JG-6

Phoenix I.D.: CO52182

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	62		%	2	07/19/23	AW	30 - 150 %	
% TCMX	59		%	2	07/19/23	AW	30 - 150 %	
% TCMX (Confirmation)	54		%	2	07/19/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	99		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	114		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	61		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	62		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	54		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	55		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	290	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	94		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	96		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	33	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	40	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	5.3	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	33	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	6.6	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	93		%	1	07/18/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	100	ug/kg	1	07/18/23	JLI	SW8260C	
Volatiles								
1,2,3-Trichloropropane	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3-Dichloropropane	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Butylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Propylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
p-Isopropyltoluene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
sec-Butylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
tert-Butylbenzene	ND	6.6	ug/Kg	1	07/18/23	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %	
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	93		%	1	07/18/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	100		%	10	07/18/23	MH	70 - 130 %	
% Bromofluorobenzene (10x)	96		%	10	07/18/23	MH	70 - 130 %	
% Dibromofluoromethane (10x)	100		%	10	07/18/23	MH	70 - 130 %	
% Toluene-d8 (10x)	97		%	10	07/18/23	MH	70 - 130 %	
Volatile Library Search	Completed				07/18/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	610	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	610	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	610	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	610	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	330	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	360	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	400	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	340	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	680	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluorene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	490	270	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	270	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	610	270	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	98		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	78		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	64		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	83		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	75		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	68		%	1	07/18/23	KCA	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	59		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	61		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	61		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	50		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	82		%	1	07/20/23	KCA	30 - 130 %

Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	8:40
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52183

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	3350	57	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	1.15	0.76	mg/Kg	1	07/19/23	IE	SW6010D
Barium	27.6	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	< 0.30	0.30	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	8670	5.7	mg/Kg	1	07/19/23	IE	SW6010D
Cadmium	0.59	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	3.85	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	7.98	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Copper	15.4	0.8	mg/kg	1	07/19/23	IE	SW6010D
Iron	11100	57	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	408	5.7	mg/Kg	1	07/19/23	IE	SW6010D
Magnesium	4590	5.7	mg/Kg	1	07/19/23	IE	SW6010D
Manganese	287	3.8	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	156	5.7	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	7.42	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Lead	19.2	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Antimony	< 3.8	3.8	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.30	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.4	3.4	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	7.98	0.38	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	18.7	0.38	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	27.9	0.8	mg/Kg	1	07/19/23	IE	SW6010D	
Percent Solid	94		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.41	0.41	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	8.57	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	212		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/18/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/17/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				07/17/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	42	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	84	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	42	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	51		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	59		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	5.3	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	89		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	130	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	130	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4-D	ND	260	ug/Kg	10	07/19/23	JRB	SW8151A	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2600	ug/Kg	10	07/19/23	JRB	SW8151A
Dalapon	ND	130	ug/Kg	10	07/19/23	JRB	SW8151A
Dicamba	ND	130	ug/Kg	10	07/19/23	JRB	SW8151A
Dichloroprop	ND	260	ug/Kg	10	07/19/23	JRB	SW8151A
Dinoseb	ND	260	ug/Kg	10	07/19/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	81		%	10	07/19/23	JRB	30 - 150 %
% DCAA (Confirmation)	96		%	10	07/19/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	70	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	66		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	76		%	2	07/19/23	SC	30 - 150 %
% TCMX	85		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	74		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.1	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDE	ND	2.1	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDT	ND	2.1	ug/Kg	2	07/19/23	AW	SW8081B
a-BHC	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
a-Chlordane	ND	3.5	ug/Kg	2	07/19/23	AW	SW8081B
Aldrin	ND	3.5	ug/Kg	2	07/19/23	AW	SW8081B
b-BHC	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Chlordane	ND	35	ug/Kg	2	07/19/23	AW	SW8081B
d-BHC	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Dieldrin	ND	3.5	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan I	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan II	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan sulfate	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Endrin	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Endrin aldehyde	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Endrin ketone	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	07/19/23	AW	SW8081B
g-Chlordane	ND	3.5	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor epoxide	ND	7.0	ug/Kg	2	07/19/23	AW	SW8081B
Methoxychlor	ND	35	ug/Kg	2	07/19/23	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	07/19/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	40		%	2	07/19/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	80		%	2	07/19/23	AW	30 - 150 %	
% TCMX	68		%	2	07/19/23	AW	30 - 150 %	
% TCMX (Confirmation)	69		%	2	07/19/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	109		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	107		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	58		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	58		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	59		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	61		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	260	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	62		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	69		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	31	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	4.1	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	07/18/23	JLI	70 - 130 %

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	77	ug/kg	1	07/18/23	JLI	SW8260C
Volatiles							
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	07/18/23	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	07/18/23	MH	70 - 130 %
% Bromofluorobenzene (10x)	97		%	10	07/18/23	MH	70 - 130 %
% Dibromofluoromethane (10x)	102		%	10	07/18/23	MH	70 - 130 %
% Toluene-d8 (10x)	97		%	10	07/18/23	MH	70 - 130 %
Volatile Library Search	Completed				07/18/23	JLI	
Semivolatiles							
1,1-Biphenyl	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
2,2'-Oxybis(1-Chloropropane)	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D 1
2,3,4,6-tetrachlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	560	ug/Kg	1	07/18/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chloronaphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Chlorophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylnaphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitroaniline	ND	560	ug/Kg	1	07/18/23	KCA	SW8270D	
2-Nitrophenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	420	ug/Kg	1	07/18/23	KCA	SW8270D	
3-Nitroaniline	ND	560	ug/Kg	1	07/18/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chloroaniline	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitroaniline	ND	560	ug/Kg	1	07/18/23	KCA	SW8270D	
4-Nitrophenol	ND	1000	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Acenaphthylene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Acetophenone	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Anthracene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Atrazine	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benz(a)anthracene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzaldehyde	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(a)pyrene	260	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(b)fluoranthene	300	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Caprolactam	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Carbazole	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D	
Chrysene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	07/18/23	KCA	SW8270D	
Dibenzofuran	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Diethyl phthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Dimethylphthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-butylphthalate	ND	700	ug/Kg	1	07/18/23	KCA	SW8270D	
Di-n-octylphthalate	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluoranthene	290	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Fluorene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorobutadiene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: JG-7

Phoenix I.D.: CO52183

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Isophorone	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Naphthalene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	07/18/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	07/18/23	KCA	SW8270D
Phenanthrene	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Phenol	ND	250	ug/Kg	1	07/18/23	KCA	SW8270D
Pyrene	310	250	ug/Kg	1	07/18/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	07/18/23	KCA	30 - 130 %
% 2-Fluorophenol	68		%	1	07/18/23	KCA	30 - 130 %
% Nitrobenzene-d5	94		%	1	07/18/23	KCA	30 - 130 %
% Phenol-d5	82		%	1	07/18/23	KCA	30 - 130 %
% Terphenyl-d14	67		%	1	07/18/23	KCA	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	103		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	70		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	68		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	70		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	56		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	89		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	9:00
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52184

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	8030	51	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	4.79	0.68	mg/Kg	1	07/19/23	IE	SW6010D
Barium	228	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	0.44	0.27	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	20000	51	mg/Kg	10	07/19/23	IE	SW6010D
Cadmium	1.25	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	7.23	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	19.4	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Copper	84.2	0.7	mg/kg	1	07/19/23	IE	SW6010D
Iron	17900	51	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	0.66	0.03	mg/Kg	2	07/18/23	PM	SW7471B
Potassium	1640	51	mg/Kg	10	07/19/23	IE	SW6010D
Magnesium	7510	51	mg/Kg	10	07/19/23	IE	SW6010D
Manganese	351	3.4	mg/Kg	10	07/19/23	IE	SW6010D
Sodium	431	5.1	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	18.2	0.34	mg/Kg	1	07/19/23	IE	SW6010D
Lead	375	3.4	mg/Kg	10	07/19/23	IE	SW6010D
Antimony	< 3.4	3.4	mg/Kg	1	07/19/23	IE	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.75	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	0.17	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Phoenix I.D.: CO52184

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.0	3.0	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/18/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	19.4	0.34	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	32.4	0.34	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	253	6.8	mg/Kg	10	07/19/23	IE	SW6010D	
Percent Solid	88		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.40	0.40	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	8.76	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	225		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/18/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/17/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				07/17/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/17/23	AL	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	45	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	ND	89	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	ND	45	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	60		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	59		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.5	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	89		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4-D	ND	280	ug/Kg	10	07/19/23	JRB	SW8151A	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Phoenix I.D.: CO52184

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	07/19/23	JRB	SW8151A
Dalapon	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A
Dicamba	ND	140	ug/Kg	10	07/19/23	JRB	SW8151A
Dichloroprop	ND	280	ug/Kg	10	07/19/23	JRB	SW8151A
Dinoseb	ND	280	ug/Kg	10	07/19/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	75		%	10	07/19/23	JRB	30 - 150 %
% DCAA (Confirmation)	93		%	10	07/19/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	76	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	49		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	54		%	2	07/19/23	SC	30 - 150 %
% TCMX	63		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	53		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	07/19/23	AW	SW8081B
a-BHC	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
b-BHC	ND	20	ug/Kg	2	07/19/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	07/19/23	AW	SW8081B
d-BHC	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan I	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan II	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan sulfate	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Endrin	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Endrin aldehyde	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Endrin ketone	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	07/19/23	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor epoxide	ND	7.6	ug/Kg	2	07/19/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	07/19/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	07/19/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	43		%	2	07/19/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	67		%	2	07/19/23	AW	30 - 150 %	
% TCMX	79		%	2	07/19/23	AW	30 - 150 %	
% TCMX (Confirmation)	59		%	2	07/19/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	80		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	94		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	62		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	64		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	61		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	63		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Interference		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	113		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Phoenix I.D.: CO52184

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	31	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	4.2	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	26	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	5.2	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Phoenix I.D.: CO52184

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	98		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	78	ug/kg	1	07/18/23	JLI	SW8260C
Volatiles							
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
1,3-Dichloropropane	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
n-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
n-Propylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
p-Isopropyltoluene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
sec-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
tert-Butylbenzene	ND	5.2	ug/Kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	94		%	1	07/18/23	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	07/18/23	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	07/18/23	JLI	70 - 130 %
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	07/18/23	MH	70 - 130 %
% Bromofluorobenzene (10x)	96		%	10	07/18/23	MH	70 - 130 %
% Dibromofluoromethane (10x)	100		%	10	07/18/23	MH	70 - 130 %
% Toluene-d8 (10x)	97		%	10	07/18/23	MH	70 - 130 %
Volatile Library Search	Completed				07/18/23	JLI	
Semivolatiles							
1,1-Biphenyl	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
2,2'-Oxybis(1-Chloropropane)	ND	260	ug/Kg	1	07/18/23	AW	SW8270D [1]
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25B

Phoenix I.D.: CO52184

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2,4-Dinitrophenol	ND	590	ug/Kg	1	07/18/23	AW	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2-Methylnaphthalene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
2-Nitroaniline	ND	590	ug/Kg	1	07/18/23	AW	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	07/18/23	AW	SW8270D	1
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	07/18/23	AW	SW8270D	
3-Nitroaniline	ND	590	ug/Kg	1	07/18/23	AW	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	07/18/23	AW	SW8270D	
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chloroaniline	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
4-Nitroaniline	ND	590	ug/Kg	1	07/18/23	AW	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	07/18/23	AW	SW8270D	
Acenaphthene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Acenaphthylene	340	260	ug/Kg	1	07/18/23	AW	SW8270D	
Acetophenone	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Anthracene	1000	260	ug/Kg	1	07/18/23	AW	SW8270D	
Atrazine	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benz(a)anthracene	1700	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzaldehyde	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(a)pyrene	1700	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(b)fluoranthene	1800	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(ghi)perylene	1200	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(k)fluoranthene	570	260	ug/Kg	1	07/18/23	AW	SW8270D	
Benzyl butyl phthalate	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Caprolactam	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Carbazole	ND	370	ug/Kg	1	07/18/23	AW	SW8270D	
Chrysene	1800	260	ug/Kg	1	07/18/23	AW	SW8270D	
Dibenz(a,h)anthracene	210	190	ug/Kg	1	07/18/23	AW	SW8270D	
Dibenzofuran	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Diethyl phthalate	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Dimethylphthalate	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Di-n-butylphthalate	ND	740	ug/Kg	1	07/18/23	AW	SW8270D	
Di-n-octylphthalate	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Fluoranthene	3300	260	ug/Kg	1	07/18/23	AW	SW8270D	
Fluorene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorobenzene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorobutadiene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
Indeno(1,2,3-cd)pyrene	970	260	ug/Kg	1	07/18/23	AW	SW8270D
Isophorone	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
Naphthalene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	07/18/23	AW	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	07/18/23	AW	SW8270D
Phenanthrene	3800	260	ug/Kg	1	07/18/23	AW	SW8270D
Phenol	ND	260	ug/Kg	1	07/18/23	AW	SW8270D
Pyrene	4500	260	ug/Kg	1	07/18/23	AW	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	94		%	1	07/18/23	AW	30 - 130 %
% 2-Fluorobiphenyl	72		%	1	07/18/23	AW	30 - 130 %
% 2-Fluorophenol	61		%	1	07/18/23	AW	30 - 130 %
% Nitrobenzene-d5	85		%	1	07/18/23	AW	30 - 130 %
% Phenol-d5	75		%	1	07/18/23	AW	30 - 130 %
% Terphenyl-d14	60		%	1	07/18/23	AW	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	103		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	72		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	71		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	72		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	58		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	93		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 26, 2023

FOR: Attn: Mr. Brian Pendergast
American Environmental Solutions, Inc
42 West Avenue
Patchogue, NY 11772

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		07/14/23	9:05
Location Code:	AES-EASTSIDE	Received by:	CP	07/17/23	16:44
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	0987				

Laboratory Data

SDG ID: GCO52178
Phoenix ID: CO52185

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.75	0.75	mg/Kg	1	07/19/23	IE	SW6010D
Aluminum	2770	56	mg/Kg	10	07/19/23	IE	SW6010D
Arsenic	28.7	0.75	mg/Kg	1	07/19/23	IE	SW6010D
Barium	347	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Beryllium	< 0.30	0.30	mg/Kg	1	07/19/23	IE	SW6010D
Calcium	6350	5.6	mg/Kg	1	07/19/23	IE	SW6010D
Cadmium	1.69	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Cobalt	6.45	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Chromium	19.9	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Copper	675	7.5	mg/kg	10	07/19/23	IE	SW6010D
Iron	20500	56	mg/Kg	10	07/19/23	IE	SW6010D
Mercury	4.68	0.15	mg/Kg	10	07/18/23	PM	SW7471B
Potassium	374	5.6	mg/Kg	1	07/19/23	IE	SW6010D
Magnesium	2650	5.6	mg/Kg	1	07/19/23	IE	SW6010D
Manganese	96.0	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Sodium	374	5.6	mg/Kg	1	07/19/23	IE	SW6010D
Nickel	18.8	0.38	mg/Kg	1	07/19/23	IE	SW6010D
Lead	2250	38	mg/Kg	100	07/20/23	TH	SW6010D
Antimony	< 38	38	mg/Kg	10	07/19/23	IE	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	07/19/23	IE	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Barium	0.79	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	07/18/23	PM	SW846 1311/7470
TCLP Lead	8.47	0.10	mg/L	1	07/24/23	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	07/18/23	IE	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Phoenix I.D.: CO52185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.4	3.4	mg/Kg	1	07/19/23	IE	SW6010D	
TCLP Metals Digestion	Completed				07/24/23	ZT/ZT	SW3010A	
Trivalent Chromium	19.9	0.38	mg/kg	1	07/20/23		CALC 6010-7196	
Vanadium	23.2	0.38	mg/Kg	1	07/19/23	IE	SW6010D	
Zinc	569	7.5	mg/Kg	10	07/19/23	IE	SW6010D	
Percent Solid	82		%		07/17/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	07/17/23	MW/ER	SW846-Corr	1
Flash Point	>200	200	Degree F	1	07/19/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.46	0.46	mg/Kg	1	07/18/23	NP	SW7196A	
Ignitability	Passed	140	degree F	1	07/19/23	G	SW846-Ignit	1
pH at 25C - Soil	7.89	1.00	pH Units	1	07/17/23 21:27	MW/ER	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	07/18/23	CL/NP/DK	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	07/20/23	NP/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	07/20/23	NP/GD	SW846-React	1
Redox Potential	246		mV	1	07/17/23	MW/ER	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.80	0.61	mg/Kg	1	07/19/23	CL/NP/DK	SW9012B	
Mercury Digestion	Completed				07/18/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				07/17/23	P/M	SW3546	
Soil Extraction for Herbicide	Completed				07/18/23	L/MQ/D	SW3546	
NJ EPH Extraction	Completed				07/17/23	H/C/M	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				07/17/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				07/17/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				07/17/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				07/18/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				07/18/23	CV/MQ/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				07/21/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				07/17/23	AL	SW1311	
TCLP Pesticides Extraction	Completed				07/18/23	I/I	SW3510C	
TCLP Semi-Volatile Extraction	Completed				07/19/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				07/17/23	CV	SW1311	
Total Metals Digest	Completed				07/17/23	L/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	910	48	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
C9-C28	2000	96	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
Total EPH	2910	48	mg/kg	5	07/18/23	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	5	07/18/23	JRB	40 - 140 %	
% Terphenyl (surr)	Diluted Out		%	5	07/18/23	JRB	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.9	mg/Kg	50	07/19/23	V	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	89		%	50	07/19/23	V	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	150	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	07/19/23	JRB	SW8151A	
2,4-D	ND	300	ug/Kg	10	07/19/23	JRB	SW8151A	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3000	ug/Kg	10	07/19/23	JRB	SW8151A
Dalapon	ND	150	ug/Kg	10	07/19/23	JRB	SW8151A
Dicamba	ND	150	ug/Kg	10	07/19/23	JRB	SW8151A
Dichloroprop	ND	300	ug/Kg	10	07/19/23	JRB	SW8151A
Dinoseb	ND	300	ug/Kg	10	07/19/23	JRB	SW8151A
QA/QC Surrogates							
% DCAA	75		%	10	07/19/23	JRB	30 - 150 %
% DCAA (Confirmation)	89		%	10	07/19/23	JRB	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1221	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1232	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1242	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1248	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1254	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1260	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1262	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
PCB-1268	ND	81	ug/Kg	2	07/19/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	48		%	2	07/19/23	SC	30 - 150 %
% DCBP (Confirmation)	51		%	2	07/19/23	SC	30 - 150 %
% TCMX	60		%	2	07/19/23	SC	30 - 150 %
% TCMX (Confirmation)	39		%	2	07/19/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.4	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDE	ND	3.0	ug/Kg	2	07/19/23	AW	SW8081B
4,4' -DDT	8.0	2.4	ug/Kg	2	07/19/23	AW	SW8081B
a-BHC	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
a-Chlordane	ND	4.0	ug/Kg	2	07/19/23	AW	SW8081B
Aldrin	ND	4.0	ug/Kg	2	07/19/23	AW	SW8081B
b-BHC	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Chlordane	ND	40	ug/Kg	2	07/19/23	AW	SW8081B
d-BHC	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan I	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan II	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Endosulfan sulfate	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Endrin	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Endrin aldehyde	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Endrin ketone	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	07/19/23	AW	SW8081B
g-Chlordane	ND	4.0	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Heptachlor epoxide	ND	8.1	ug/Kg	2	07/19/23	AW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	07/19/23	AW	SW8081B
Toxaphene	ND	160	ug/Kg	2	07/19/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	60		%	2	07/19/23	AW	30 - 150 %

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Phoenix I.D.: CO52185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	36		%	2	07/19/23	AW	30 - 150 %	
% TCMX	55		%	2	07/19/23	AW	30 - 150 %	
% TCMX (Confirmation)	43		%	2	07/19/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	07/19/23	JRB	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	07/19/23	JRB	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	92		%	10	07/19/23	JRB	30 - 150 %	
% DCAA (Confirmation)	102		%	10	07/19/23	JRB	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
a-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Alachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	1
Aldrin	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
b-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Chlordane	ND	5.0	ug/L	10	07/19/23	CN	SW8081B	
d-BHC	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Dieldrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	07/19/23	CN	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	07/19/23	CN	SW8081B	
Toxaphene	ND	20	ug/L	10	07/19/23	CN	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	59		%	10	07/19/23	CN	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	62		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec)	63		%	10	07/19/23	CN	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	65		%	10	07/19/23	CN	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	940	300	mg/Kg	5	07/18/23	JRB	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Interference		%	5	07/18/23	JRB	50 - 150 %	
% Terphenyl (surr)	Interference		%	5	07/18/23	JRB	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C	
1,1,2-Trichloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C	
1,1-Dichloroethene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Phoenix I.D.: CO52185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dibromoethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,2-Dichloropropane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,3-Dichlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
1,4-Dichlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
2-Hexanone	ND	49	ug/kg	1	07/18/23	JLI	SW8260C
4-Methyl-2-pentanone	ND	49	ug/kg	1	07/18/23	JLI	SW8260C
Acetone	ND	50	ug/kg	1	07/18/23	JLI	SW8260C
Benzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Bromochloromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Bromodichloromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Bromoform	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Bromomethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Carbon Disulfide	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Carbon tetrachloride	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Chlorobenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Chloroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Chloroform	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Chloromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Cyclohexane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Dibromochloromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Dichlorodifluoromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Ethylbenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Isopropylbenzene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
m&p-Xylene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Methyl ethyl ketone	ND	59	ug/kg	1	07/18/23	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	ug/kg	1	07/18/23	JLI	SW8260C
Methylacetate	ND	7.9	ug/kg	1	07/18/23	JLI	SW8260C
Methylcyclohexane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Methylene chloride	ND	49	ug/kg	1	07/18/23	JLI	SW8260C
o-Xylene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Styrene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Tetrachloroethene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Toluene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Total Xylenes	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
trans-1,3-Dichloropropene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Trichloroethene	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorofluoromethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
Vinyl chloride	ND	9.9	ug/kg	1	07/18/23	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	07/18/23	JLI	70 - 130 %

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Phoenix I.D.: CO52185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	100	ug/kg	1	07/18/23	JLI	SW8260C	
Volatiles								
1,2,3-Trichloropropane	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
1,2,4-Trimethylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3,5-Trimethylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
1,3-Dichloropropane	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Butylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
n-Propylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
p-Isopropyltoluene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
sec-Butylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
tert-Butylbenzene	ND	9.9	ug/Kg	1	07/18/23	JLI	SW8260C	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	96		%	1	07/18/23	JLI	70 - 130 %	
% Bromofluorobenzene	97		%	1	07/18/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	07/18/23	JLI	70 - 130 %	
% Toluene-d8	92		%	1	07/18/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Benzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	07/18/23	MH	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	07/18/23	MH	70 - 130 %	
% Bromofluorobenzene (10x)	98		%	10	07/18/23	MH	70 - 130 %	
% Dibromofluoromethane (10x)	102		%	10	07/18/23	MH	70 - 130 %	
% Toluene-d8 (10x)	97		%	10	07/18/23	MH	70 - 130 %	
Volatile Library Search	Completed				07/18/23	JLI		
Semivolatiles								
1,1-Biphenyl	420	280	ug/Kg	1	07/18/23	AW	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: OIL-25A

Phoenix I.D.: CO52185

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,4-Dinitrophenol	ND	640	ug/Kg	1	07/18/23	AW	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2-Methylnaphthalene	1200	280	ug/Kg	1	07/18/23	AW	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
2-Nitroaniline	ND	640	ug/Kg	1	07/18/23	AW	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	07/18/23	AW	SW8270D	1
3,3'-Dichlorobenzidine	ND	480	ug/Kg	1	07/18/23	AW	SW8270D	
3-Nitroaniline	ND	640	ug/Kg	1	07/18/23	AW	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	07/18/23	AW	SW8270D	
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
4-Nitroaniline	ND	640	ug/Kg	1	07/18/23	AW	SW8270D	
4-Nitrophenol	ND	1200	ug/Kg	1	07/18/23	AW	SW8270D	
Acenaphthene	4300	280	ug/Kg	1	07/18/23	AW	SW8270D	
Acenaphthylene	1600	280	ug/Kg	1	07/18/23	AW	SW8270D	
Acetophenone	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Anthracene	6700	280	ug/Kg	1	07/18/23	AW	SW8270D	
Atrazine	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Benz(a)anthracene	20000	1400	ug/Kg	5	07/18/23	AW	SW8270D	
Benzaldehyde	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(a)pyrene	23000	1400	ug/Kg	5	07/18/23	AW	SW8270D	
Benzo(b)fluoranthene	23000	1400	ug/Kg	5	07/18/23	AW	SW8270D	
Benzo(ghi)perylene	7900	280	ug/Kg	1	07/18/23	AW	SW8270D	
Benzo(k)fluoranthene	4800	280	ug/Kg	1	07/18/23	AW	SW8270D	
Benzyl butyl phthalate	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	07/18/23	AW	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Caprolactam	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Carbazole	3600	400	ug/Kg	1	07/18/23	AW	SW8270D	
Chrysene	19000	1400	ug/Kg	5	07/18/23	AW	SW8270D	
Dibenz(a,h)anthracene	2100	200	ug/Kg	1	07/18/23	AW	SW8270D	
Dibenzofuran	2900	280	ug/Kg	1	07/18/23	AW	SW8270D	
Diethyl phthalate	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Dimethylphthalate	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Di-n-butylphthalate	ND	800	ug/Kg	1	07/18/23	AW	SW8270D	
Di-n-octylphthalate	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Fluoranthene	59000	7000	ug/Kg	25	07/19/23	AW	SW8270D	
Fluorene	6000	280	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorobenzene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorobutadiene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	280	ug/Kg	1	07/18/23	AW	SW8270D
Indeno(1,2,3-cd)pyrene	9300	1400	ug/Kg	5	07/18/23	AW	SW8270D
Isophorone	ND	280	ug/Kg	1	07/18/23	AW	SW8270D
Naphthalene	2500	280	ug/Kg	1	07/18/23	AW	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	07/18/23	AW	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	07/18/23	AW	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	07/18/23	AW	SW8270D
Phenanthrene	49000	7000	ug/Kg	25	07/19/23	AW	SW8270D
Phenol	ND	280	ug/Kg	1	07/18/23	AW	SW8270D
Pyrene	52000	7000	ug/Kg	25	07/19/23	AW	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	07/18/23	AW	30 - 130 %
% 2-Fluorobiphenyl	80		%	1	07/18/23	AW	30 - 130 %
% 2-Fluorophenol	66		%	1	07/18/23	AW	30 - 130 %
% Nitrobenzene-d5	89		%	1	07/18/23	AW	30 - 130 %
% Phenol-d5	79		%	1	07/18/23	AW	30 - 130 %
% Terphenyl-d14	64		%	1	07/18/23	AW	30 - 130 %
% 2-Fluorobiphenyl (5x)	81		%	5	07/18/23	AW	30 - 130 %
% Nitrobenzene-d5 (5x)	88		%	5	07/18/23	AW	30 - 130 %
% Terphenyl-d14 (5x)	93		%	5	07/18/23	AW	30 - 130 %
% 2-Fluorobiphenyl (25x)	90		%	25	07/19/23	AW	30 - 130 %
% Nitrobenzene-d5 (25x)	105		%	25	07/19/23	AW	30 - 130 %
% Terphenyl-d14 (25x)	94		%	25	07/19/23	AW	30 - 130 %
TCLP Acid/Base-Neutral							
1,4-Dichlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	07/20/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	99		%	1	07/20/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	07/20/23	KCA	30 - 130 %
% 2-Fluorophenol	66		%	1	07/20/23	KCA	15 - 110 %
% Nitrobenzene-d5	69		%	1	07/20/23	KCA	30 - 130 %
% Phenol-d5	56		%	1	07/20/23	KCA	15 - 110 %
% Terphenyl-d14	94		%	1	07/20/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				07/18/23	MR	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
July 26, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-1

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52178

Sample wt/vol: 6.04 (g/mL) g Lab File ID: 0717_53.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 12 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.
N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-2

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52179

Sample wt/vol: 2.92 (g/mL) g Lab File ID: 0717_54.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 10 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000080-56-8	.alpha.-Pinene	5.819	15	JN

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.
N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-3

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52180

Sample wt/vol: 4.27 (g/mL) g Lab File ID: 0717_55.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 14 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000080-56-8	.alpha.-Pinene	5.819	42	JN
018172-67-3	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-, (1S)-	6.353	12	JN
000138-86-3	Limonene	6.794	7.4	JN

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-4

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52181

Sample wt/vol: 4.93 (g/mL) g Lab File ID: 0717_56.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 11 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: JG-6

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52182

Sample wt/vol: 4.44 (g/mL) g Lab File ID: 0717_57.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 15 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: JG-7

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52183

Sample wt/vol: 5.14 (g/mL) g Lab File ID: 0717_58.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 6 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: OIL-25B

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52184

Sample wt/vol: 5.45 (g/mL) g Lab File ID: 0717_59.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 12 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: OIL-25A

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52185

Sample wt/vol: 3.08 (g/mL) g Lab File ID: 0717_60.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 18 Date Analyzed: 07/18/23

GC Column: RTX-VMS ID: 0.18mm Dilution Factor: 1

Purge Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

J - Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the indentification criteria, but the results is less than the quantitation limit, but greater than zero.

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-1

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water): SOIL Lab Sample ID: CO52178

Sample wt/vol: 15.31 (g/mL) g Lab File ID: 0717_17.D

Level: (low/med): Low Date Received: 07/17/23

% Moisture: not dec. 12 decanted:(Y/N) NA Date Extracted: 07/18/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 11 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.090	2900	JN
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.331	2800	JNA
	unknown	2.942	600	JNC
	2-Pentanone, 4-hydroxy-4-methyl- Isomer	3.206	310	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.068	1900	JNC
018435-45-5	1-Nonadecene	7.161	1200	JN
000057-10-3	n-Hexadecanoic acid	7.772	390	JN
	unknown	7.813	420	J
006566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	8.400	480	JN
000483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	8.864	320	JN
000192-97-2	Benzo[e]pyrene	12.766	360	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-2

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water) SOIL Lab Sample ID: CO52179

Sample wt/vol: 15.46 (g/mL) g Lab File ID: 0717_22.D

Level: (low/med) Low Date Received: 07/17/23

% Moisture: not dec. 10 decanted:(Y/N) NA Date Extracted: 07/18/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 12 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.090	1900	JN
	unknown	2.207	410	J
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.372	36000	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.073	1500	JNC
	unknown	6.802	450	J
000112-39-0	Hexadecanoic acid, methyl ester	7.660	440	JN
000057-10-3	n-Hexadecanoic acid	7.783	810	JN
	unknown	7.824	320	J
000112-63-0	9,12-Octadecadienoic acid (Z,Z)-,	8.265	1300	JN
001937-62-8	9-Octadecenoic acid, methyl ester,	8.288	1200	JN
006566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	8.412	550	JN
	unknown	8.494	350	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-3

Lab Name: Phoenix Environmental Labs | Client: AES-EASTSIDE

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO5217

Matrix:(soil/water): SOIL | Lab Sample ID: CO52180

Sample wt/vol: 15.03 (g/mL) g | Lab File ID: 0717_25.D

Level: (low/med): Low | Date Received: 07/17/23

% Moisture: not dec. 14 | decanted:(Y/N) NA | Date Extracted: 07/18/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 14 | CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000141-79-7	3-Penten-2-one, 4-methyl-	2.090	3200	JNA
	unknown	2.207	590	J
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.378	47000	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.079	1600	JNC
000629-78-7	Heptadecane	6.802	550	JN
000112-39-0	Hexadecanoic acid, methyl ester	7.666	540	JN
000613-12-7	Anthracene, 2-methyl-	7.736	340	JN
000057-10-3	n-Hexadecanoic acid	7.795	1200	JN
	unknown	7.830	510	J
056554-62-2	10,13-Octadecadienoic acid, methyl	8.271	1500	JN
001937-62-8	9-Octadecenoic acid, methyl ester,	8.294	1400	JN
1000336-66-8	6-Octadecenoic acid	8.424	990	JN
	unknown	8.500	400	J
000243-17-4	11H-Benzo[b]fluorene	8.935	390	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FWPD-4

Lab Name: Phoenix Environmental Labs | Client: AES-EASTSIDE

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO5217

Matrix:(soil/water): SOIL | Lab Sample ID: CO52181

Sample wt/vol: 15.16 (g/mL) g | Lab File ID: 0717_23.D

Level: (low/med): Low | Date Received: 07/17/23

% Moisture: not dec. 11 | decanted:(Y/N) NA | Date Extracted: 07/18/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 15 | CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.084	3200	JN
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.342	15000	JNA
	unknown	2.948	430	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.079	2200	JNC
	unknown	6.344	440	J
330207-53-9	E-14-Hexadecenal	7.166	1200	JN
000613-12-7	Anthracene, 2-methyl-	7.730	390	JN
	Phenanthrene, 1-methyl- Isomer	7.754	500	JN
000057-10-3	n-Hexadecanoic acid	7.789	980	JN
	unknown	7.824	480	J
000832-69-9	Phenanthrene, 1-methyl-	7.848	630	JN
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	8.130	780	JN
001937-62-8	9-Octadecenoic acid, methyl ester,	8.288	1300	JN
015295-31-5	1,3-Pentadiene, 1,1-diphenyl-, (Z)	8.647	480	JN
000483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	8.882	1300	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: JG-6

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water) SOIL Lab Sample ID: CO52182

Sample wt/vol: 15.35 (g/mL) g Lab File ID: 0717_14.D

Level: (low/med) Low Date Received: 07/17/23

% Moisture: not dec. 15 decanted:(Y/N) NA Date Extracted: 07/18/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.090	830	JN
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.331	2500	JNA
	unknown	2.942	630	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.068	2100	JNC
018435-45-5	1-Nonadecene	7.160	1200	JN
000057-10-3	n-Hexadecanoic acid	7.771	430	JN
015594-90-8	1-Heneicosanol	8.612	1200	JN
000295-48-7	Cyclopentadecane	11.226	310	JN
000198-55-0	Perylene	12.349	370	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.
C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: JG-7

Lab Name: Phoenix Environmental Labs | Client: AES-EASTSIDE

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO5217

Matrix:(soil/water): SOIL | Lab Sample ID: CO52183

Sample wt/vol: 15.14 (g/mL) g | Lab File ID: 0717_24.D

Level: (low/med): Low | Date Received: 07/17/23

% Moisture: not dec. 6 | decanted:(Y/N) NA | Date Extracted: 07/18/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 6 | CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.331	1900	JNA
004436-75-3	3-Hexene-2,5-dione	3.024	800	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.079	1500	JNC
1000130-97-9	E-15-Heptadecenal	7.172	800	JN
000057-10-3	n-Hexadecanoic acid	7.783	510	JN
000057-11-4	Octadecanoic acid	8.494	320	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.
C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: OIL-25B

Lab Name: Phoenix Environmental Labs | Client: AES-EASTSIDE

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO5217

Matrix:(soil/water): SOIL | Lab Sample ID: CO52184

Sample wt/vol: 15.33 (g/mL) g | Lab File ID: 0717_26.D

Level: (low/med): Low | Date Received: 07/17/23

% Moisture: not dec. 12 | decanted:(Y/N) NA | Date Extracted: 07/18/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 14 | CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.090	2100	JN
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.337	3000	JNA
	unknown	2.948	370	JNC
	unknown	5.069	300	J
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.079	1800	JNC
000112-88-9	1-Octadecene	7.172	1100	JN
002531-84-2	Phenanthrene, 2-methyl-	7.736	380	JN
000610-48-0	Anthracene, 1-methyl-	7.760	430	JN
000057-10-3	n-Hexadecanoic acid	7.789	680	JN
	unknown	7.830	830	J
000612-94-2	Naphthalene, 2-phenyl-	8.001	760	JN
000084-65-1	9,10-Anthracenedione	8.024	400	JN
005737-13-3	Cyclopenta(def)phenanthrenone	8.300	400	JN
002381-21-7	Pyrene, 1-methyl-	9.052	310	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: OIL-25A

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO5217

Matrix:(soil/water) SOIL Lab Sample ID: CO52185

Sample wt/vol: 15.28 (g/mL) g Lab File ID: 0717_18.D

Level: (low/med) Low Date Received: 07/17/23

% Moisture: not dec. 18 decanted:(Y/N) NA Date Extracted: 07/18/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 7/18/2023

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 1 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000141-79-7	3-Penten-2-one, 4-methyl-	2.090	1600	JNA
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.331	3100	JNA
000582-16-1	Naphthalene, 2,7-dimethyl-	5.668	1200	JN
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.073	2200	JNC
002320-32-3	Benzene, [1-(2,4-cyclopentadien-1-	6.508	1100	JN
	unknown	6.590	1400	J
000192-97-2	Benzo[e]pyrene	12.431	4900	JN
000192-97-2	Benzo[e]pyrene	12.860	13000	JN
	Benzo[e]pyrene Isomer	13.195	5500	JN
000215-58-7	Benzo[b]triphenylene	15.668	4000	JN
000215-58-7	Benzo[b]triphenylene	16.097	4000	JN
	Benzo[b]triphenylene Isomer	16.156	2800	JN
000191-24-2	Benzo[ghi]perylene	16.520	4300	JN
000192-65-4	1,2:4,5-Dibenzopyrene	17.983	6000	JN
000189-64-0	3,4:8,9-Dibenzopyrene	18.101	2800	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.
C - Indicates that the tentatively identified compound is a suspected prep artifact produced during extraction process.
Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

NY # 11301

QA/QC Report

July 26, 2023

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687382 (mg/kg), QC Sample No: CO51607 40X (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.41	<0.41	NC	94.7						85 - 115	30	
Chromium, Hexavalent (Ins)						98.6			97.7			85 - 115	30	
Chromium, Hexavalent (Sol)						93.8			<10			85 - 115	30	m
QA/QC Batch 687385 (mg/kg), QC Sample No: CO51603 2X (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	106	107	0.9	91.4	96.5	5.4	70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 687375 (mg/L), QC Sample No: CO51611 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	99.1			103			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 687378 (mg/L), QC Sample No: CO51901 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.05	<0.05	<0.05	NC	105	104	1.0	104			80 - 120	20	
Barium	BRL	0.01	0.14	0.14	0	102	102	0.0	102			80 - 120	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	97.9	97.9	0.0	94.0			80 - 120	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	95.0	94.8	0.2	92.0			80 - 120	20	
Lead	BRL	0.010	<0.010	<0.010	NC	95.3	95.3	0.0	94.6			80 - 120	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	96.5	96.4	0.1	96.9			80 - 120	20	
Silver	BRL	0.010	<0.010	<0.010	NC	102	101	1.0	103			80 - 120	20	
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 687326 (mg/kg), QC Sample No: CO52168 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
ICP Metals - Soil														
Aluminum	BRL	5.0	6880	9220	29.1	107	113	5.5	NC			75 - 125	35	
Antimony	BRL	3.3	<3.7	<3.5	NC	111	121	8.6	99.1			75 - 125	35	
Arsenic	BRL	0.67	3.89	4.52	15.0	107	115	7.2	109			75 - 125	35	
Barium	BRL	0.33	89.0	128	35.9	110	109	0.9	123			75 - 125	35	r
Beryllium	BRL	0.27	0.33	0.41	NC	105	117	10.8	105			75 - 125	35	
Cadmium	BRL	0.33	1.02	1.04	NC	108	124	13.8	113			75 - 125	35	
Calcium	BRL	5.0	31700	45300	35.3	103	113	9.3	NC			75 - 125	35	
Chromium	BRL	0.33	17.4	22.7	26.4	108	118	8.8	117			75 - 125	35	
Cobalt	BRL	0.33	9.38	8.32	12.0	108	118	8.8	109			75 - 125	35	
Copper	BRL	0.67	38.5	35.9	7.00	99.8	110	9.7	104			75 - 125	35	
Iron	BRL	5.0	18400	18100	1.60	110	116	5.3	NC			75 - 125	35	
Lead	BRL	0.33	91.3	116	23.8	103	109	5.7	114			75 - 125	35	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Magnesium	BRL	5.0	7280	10500	36.2	110	117	6.2	NC			75 - 125	35	r
Manganese	BRL	0.33	244	261	6.70	109	116	6.2	117			75 - 125	35	
Nickel	BRL	0.33	14.4	18.0	22.2	107	120	11.5	115			75 - 125	35	
Potassium	BRL	5.0	1680	2770	49.0	94.5	99.2	4.9	>130			75 - 125	35	m,r
Selenium	BRL	1.3	<1.5	<1.4	NC	109	118	7.9	107			75 - 125	35	
Silver	BRL	0.33	<0.37	<0.35	NC	99.2	108	8.5	106			75 - 125	35	
Sodium	BRL	5.0	380	421	10.2	90.1	94.8	5.1	>130			75 - 125	35	m
Thallium	BRL	3.0	<3.4	<3.1	NC	103	112	8.4	104			75 - 125	35	
Vanadium	BRL	0.33	37.6	35.4	6.00	110	118	7.0	113			75 - 125	35	
Zinc	BRL	0.67	93.0	112	18.5	113	119	5.2	126			75 - 125	35	m
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 688219 (mg/L), QC Sample No: CO56052 (CO52185)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.05	<0.05	<0.05	NC	114	112	1.8	114			80 - 120	20	
Barium	BRL	0.01	2.63	2.64	0.40	108	107	0.9	99.2			80 - 120	20	
Cadmium	BRL	0.005	0.052	0.052	0	111	110	0.9	108			80 - 120	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	105	104	1.0	103			80 - 120	20	
Lead	BRL	0.010	1.16	1.16	0	110	108	1.8	108			80 - 120	20	
Selenium	BRL	0.05	<0.04	<0.05	NC	121	120	0.8	121			80 - 120	20	l
Silver	BRL	0.010	<0.005	<0.010	NC	109	107	1.9	112			80 - 120	20	
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

Environmental Laboratories, Inc.
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NY # 11301

QA/QC Report

July 26, 2023

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687531 (mg/Kg), QC Sample No: CO50368 50X (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Total Cyanide (SW9010C Distill.)	BRL	0.50	1.24	1.27	NC	94.2			72.4			80 - 120	30	m
Comment:														
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils														
QA/QC Batch 687389 (mg/Kg), QC Sample No: CO51184 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Reactivity Cyanide	BRL	1	<6	<5.6	NC	102						85 - 115	30	
Reactivity Sulfide	BRL	20	<20	<20	NC	94.5						80 - 120	30	
QA/QC Batch 687359 (PH), QC Sample No: CO51603 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
pH			8.02	8.48	5.60	101						85 - 115	20	
QA/QC Batch 687653 (Degree F), QC Sample No: CO51786 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)														
Flash Point			>200	>200	NC	101						75 - 125	30	
Comment:														
Additional criteria matrix spike acceptance range is 75-125%.														

m = This parameter is outside laboratory MS/MSD specified recovery limits.

Environmental Laboratories, Inc.
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NY # 11301

QA/QC Report

July 26, 2023

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687322 (mg/kg), QC Sample No: CO50619 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	10	96	94	2.1	63	60	4.9	40 - 140	25	
C9-C28 #2 Fuel / Diesel			88	92	4.4				40 - 140	25	
>C28-C40	ND	10	84	84	0.0	58	55	5.3	40 - 140	25	
C9 - Nonane	ND	3.3	71	69	2.9	46	42	9.1	40 - 140	25	m
C10 - Decane	ND	3.3	77	75	2.6	48	45	6.5	40 - 140	25	m
C12 - Dodecane	ND	3.3	88	86	2.3	54	49	9.7	40 - 140	25	m
C14 - Tetradecane	ND	3.3	93	91	2.2	58	54	7.1	40 - 140	25	
C16 - Hexadecane	ND	3.3	100	99	1.0	68	64	6.1	40 - 140	25	
C18 - Octadecane	ND	3.3	119	112	6.1	78	74	5.3	40 - 140	25	
C20 - Eicosane	ND	3.3	105	103	1.9	68	65	4.5	40 - 140	25	
C21 - Heneicosane	ND	3.3	98	95	3.1	73	72	1.4	40 - 140	25	
C22 - Docosane	ND	3.3	114	111	2.7	76	71	6.8	40 - 140	25	
C24 - Tetracosane	ND	3.3	96	96	0.0	66	62	6.3	40 - 140	25	
C26 - Hexacosane	ND	3.3	97	97	0.0	65	63	3.1	40 - 140	25	
C28 - Octacosane	ND	3.3	97	97	0.0	63	66	4.7	40 - 140	25	
C30 - Tricotane	ND	3.3	95	95	0.0	63	60	4.9	40 - 140	25	
C32 - Dotriacontance	ND	3.3	91	90	1.1	68	64	6.1	40 - 140	25	
C34 - Tetratriacontane	ND	3.3	88	88	0.0	63	56	11.8	40 - 140	25	
C36 - Hexatriacontane	ND	3.3	82	80	2.5	59	55	7.0	40 - 140	25	
C38 - Octatriacontane	ND	3.3	70	70	0.0	46	45	2.2	40 - 140	25	m
C40 - Tetracontane	ND	3.3	80	79	1.3	52	53	1.9	40 - 140	25	
% COD (surr)	106	%	104	107	2.8	63	59	6.6	40 - 140	25	
% Terphenyl (surr)	98	%	95	94	1.1	59	56	5.2	40 - 140	25	
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5% Additional: MS acceptance range 50-150%.											
QA/QC Batch 687320 (mg/Kg), QC Sample No: CO52183 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum HC	ND	50	99	95	4.1	69	70	1.4	30 - 130	30	
% COD (surr)	84	%	78	77	1.3	103	103	0.0	50 - 150	30	
% Terphenyl (surr)	78	%	68	65	4.5	71	97	31.0	50 - 150	30	r
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 687644 (mg/Kg), QC Sample No: CO51610 50X (CO52178 (50X) , CO52179 (50X) , CO52180 (50X) , CO52181 (50X) , CO52182 (50X) , CO52183 (50X) , CO52184 (50X) , CO52185 (50X))											
Gasoline Range Hydrocarbons (C6C10) - Soil											
GRO (C6-C10)	ND	5.0	88	88	0.0	90	92	2.2	70 - 130	30	
% 2,5-Dibromotoluene (FID)	99	%	95	99	4.1	97	93	4.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687303 (ug/Kg), QC Sample No: CO49960 10X (CO52178, CO52179, CO52180, CO52181)											
Chlorinated Herbicides - Soil											
2,4,5-T	ND	130	43	47	8.9	52	51	1.9	40 - 140	30	
2,4,5-TP (Silvex)	ND	130	49	52	5.9	60	59	1.7	40 - 140	30	
2,4-D	ND	250	48	48	0.0	62	56	10.2	40 - 140	30	
2,4-DB	ND	2500	43	42	2.4	66	54	20.0	40 - 140	30	
Dalapon	ND	130	54	60	10.5	40	50	22.2	40 - 140	30	
Dicamba	ND	130	68	77	12.4	61	67	9.4	40 - 140	30	
Dichloroprop	ND	130	53	56	5.5	81	65	21.9	40 - 140	30	
Dinoseb	ND	130	52	67	25.2	51	63	21.1	40 - 140	30	
% DCAA (Surrogate Rec)	72	%	67	68	1.5	78	74	5.3	30 - 150	30	
% DCAA (Surrogate Rec) (Confirm	78	%	75	74	1.3	98	91	7.4	30 - 150	30	
Comment:											
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.											
QA/QC Batch 687506 (ug/Kg), QC Sample No: CO51150 10X (CO52182, CO52183, CO52184, CO52185)											
Chlorinated Herbicides - Soil											
2,4,5-T	ND	130	50	54	7.7	67	66	1.5	40 - 140	30	
2,4,5-TP (Silvex)	ND	130	57	61	6.8	67	66	1.5	40 - 140	30	
2,4-D	ND	250	50	49	2.0	67	71	5.8	40 - 140	30	
2,4-DB	ND	2500	52	54	3.8	67	60	11.0	40 - 140	30	
Dalapon	ND	130	58	33	54.9	51	47	8.2	40 - 140	30	l,r
Dicamba	ND	130	77	71	8.1	69	68	1.5	40 - 140	30	
Dichloroprop	ND	130	63	64	1.6	75	77	2.6	40 - 140	30	
Dinoseb	ND	130	66	51	25.6	58	62	6.7	40 - 140	30	
% DCAA (Surrogate Rec)	87	%	80	80	0.0	87	87	0.0	30 - 150	30	
% DCAA (Surrogate Rec) (Confirm	88	%	88	87	1.1	106	103	2.9	30 - 150	30	
Comment:											
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.											
QA/QC Batch 687394 (ug/L), QC Sample No: CO51269 10X (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
TCLP Herbicides											
2,4,5-TP (Silvex)	ND	50	54	68	23.0	59			40 - 140	20	r
2,4-D	ND	100	64	67	4.6	59			40 - 140	20	
% DCAA	113	%	95	115	19.0	93			30 - 150	20	
% DCAA (Confirmation)	110	%	91	111	19.8	114			30 - 150	20	
Comment:											
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.											
QA/QC Batch 687314 (ug/Kg), QC Sample No: CO52184 2X (CO52178, CO52181, CO52182, CO52183, CO52184, CO52185)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33	67	71	5.8	55	68	21.1	40 - 140	30	
PCB-1221	ND	33							40 - 140	30	
PCB-1232	ND	33							40 - 140	30	
PCB-1242	ND	33							40 - 140	30	
PCB-1248	ND	33							40 - 140	30	
PCB-1254	ND	33							40 - 140	30	
PCB-1260	ND	33	67	71	5.8	54	63	15.4	40 - 140	30	
PCB-1262	ND	33							40 - 140	30	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	45	%	60	65	8.0	50	56	11.3	30 - 150	30	
% DCBP (Surrogate Rec) (Confirm	59	%	66	70	5.9	49	55	11.5	30 - 150	30	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% TCMX (Surrogate Rec)	48	%		61	67	9.4	54	65	18.5	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	43	%		57	61	6.8	50	58	14.8	30 - 150	30
QA/QC Batch 687893 (ug/Kg), QC Sample No: CO55055 2X (CO52179, CO52180)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	33		66	87	27.5	71	88	21.4	40 - 140	30
PCB-1221	ND	33								40 - 140	30
PCB-1232	ND	33								40 - 140	30
PCB-1242	ND	33								40 - 140	30
PCB-1248	ND	33								40 - 140	30
PCB-1254	ND	33								40 - 140	30
PCB-1260	ND	33		74	88	17.3	73	90	20.9	40 - 140	30
PCB-1262	ND	33								40 - 140	30
PCB-1268	ND	33								40 - 140	30
% DCBP (Surrogate Rec)	71	%		71	77	8.1	63	79	22.5	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	99	%		66	85	25.2	69	88	24.2	30 - 150	30
% TCMX (Surrogate Rec)	62	%		67	79	16.4	64	81	23.4	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	92	%		65	72	10.2	58	73	22.9	30 - 150	30
QA/QC Batch 687315 (ug/Kg), QC Sample No: CO52184 2X (CO52178, CO52182, CO52183, CO52184, CO52185)											
Pesticides - Soil											
4,4' -DDD	ND	1.7		66	77	15.4	77	71	8.1	40 - 140	30
4,4' -DDE	ND	1.7		57	67	16.1	71	68	4.3	40 - 140	30
4,4' -DDT	ND	1.7		55	66	18.2	68	64	6.1	40 - 140	30
a-BHC	ND	1.0		57	69	19.0	65	56	14.9	40 - 140	30
a-Chlordane	ND	3.3		62	74	17.6	57	64	11.6	40 - 140	30
Aldrin	ND	1.0		56	68	19.4	67	63	6.2	40 - 140	30
b-BHC	ND	1.0		57	68	17.6	58	64	9.8	40 - 140	30
Chlordane	ND	33		57	68	17.6	59	74	22.6	40 - 140	30
d-BHC	ND	3.3		58	68	15.9	51	39	26.7	40 - 140	30
Dieldrin	ND	1.0		60	71	16.8	68	63	7.6	40 - 140	30
Endosulfan I	ND	3.3		64	77	18.4	59	55	7.0	40 - 140	30
Endosulfan II	ND	3.3		63	73	14.7	71	61	15.2	40 - 140	30
Endosulfan sulfate	ND	3.3		59	75	23.9	64	59	8.1	40 - 140	30
Endrin	ND	3.3		60	72	18.2	70	65	7.4	40 - 140	30
Endrin aldehyde	ND	3.3		59	71	18.5	55	47	15.7	40 - 140	30
Endrin ketone	ND	3.3		55	66	18.2	68	63	7.6	40 - 140	30
g-BHC	ND	1.0		56	67	17.9	78	74	5.3	40 - 140	30
g-Chlordane	ND	3.3		57	68	17.6	59	74	22.6	40 - 140	30
Heptachlor	ND	3.3		60	72	18.2	78	75	3.9	40 - 140	30
Heptachlor epoxide	ND	3.3		59	71	18.5	63	61	3.2	40 - 140	30
Methoxychlor	ND	3.3		57	68	17.6	73	69	5.6	40 - 140	30
Toxaphene	ND	130		NA	NA	NC	NA	NA	NC	40 - 140	30
% DCBP	74	%		49	58	16.8	64	66	3.1	30 - 150	30
% DCBP (Confirmation)	63	%		57	66	14.6	56	52	7.4	30 - 150	30
% TCMX	67	%		49	60	20.2	62	58	6.7	30 - 150	30
% TCMX (Confirmation)	66	%		51	61	17.9	59	56	5.2	30 - 150	30
QA/QC Batch 687518 (ug/L), QC Sample No: CO52185 10X (CO52178, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
Pesticides											
4,4' -DDD	ND	0.25		74	83	11.5	75			40 - 140	20
4,4' -DDE	ND	0.25		71	81	13.2	74			40 - 140	20
4,4' -DDT	ND	0.25		71	78	9.4	70			40 - 140	20

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
a-BHC	ND	0.15	62	75	19.0	68			40 - 140	20
Alachlor	ND	0.50	NA	NA	NC	NA			40 - 140	20
Aldrin	ND	0.15	65	77	16.9	71			40 - 140	20
b-BHC	ND	0.15	71	82	14.4	72			40 - 140	20
Chlordane	ND	5.0	67	76	12.6	69			40 - 140	20
d-BHC	ND	0.50	62	75	19.0	67			40 - 140	20
Dieldrin	ND	0.15	70	79	12.1	73			40 - 140	20
Endosulfan I	ND	0.50	70	83	17.0	74			40 - 140	20
Endosulfan II	ND	0.50	79	85	7.3	78			40 - 140	20
Endosulfan sulfate	ND	0.50	80	90	11.8	81			40 - 140	20
Endrin	ND	0.50	70	78	10.8	73			40 - 140	20
Endrin aldehyde	ND	0.50	72	83	14.2	73			40 - 140	20
g-BHC	ND	0.15	66	78	16.7	70			40 - 140	20
Heptachlor	ND	0.50	64	75	15.8	68			40 - 140	20
Heptachlor epoxide	ND	0.50	69	79	13.5	71			40 - 140	20
Methoxychlor	ND	0.50	78	84	7.4	77			40 - 140	20
Toxaphene	ND	20	NA	NA	NC	NA			40 - 140	20
% DCBP	75	%	80	81	1.2	68			30 - 150	20
% DCBP (Confirmation)	90	%	82	83	1.2	74			30 - 150	20
% TCMX	50	%	55	65	16.7	59			30 - 150	20
% TCMX (Confirmation)	54	%	62	69	10.7	75			30 - 150	20
QA/QC Batch 687890 (ug/L), QC Sample No: CO53616 10X (CO52179)										
Pesticides										
4,4' -DDD	ND	0.25	75	75	0.0	76			40 - 140	20
4,4' -DDE	ND	0.25	76	75	1.3	78			40 - 140	20
4,4' -DDT	ND	0.25	80	75	6.5	79			40 - 140	20
a-BHC	ND	0.15	74	75	1.3	80			40 - 140	20
Alachlor	ND	0.50	NA	NA	NC	NA			40 - 140	20
Aldrin	ND	0.15	74	74	0.0	79			40 - 140	20
b-BHC	ND	0.15	75	74	1.3	80			40 - 140	20
Chlordane	ND	5.0	78	75	3.9	80			40 - 140	20
d-BHC	ND	0.50	72	67	7.2	71			40 - 140	20
Dieldrin	ND	0.15	78	76	2.6	81			40 - 140	20
Endosulfan I	ND	0.50	80	77	3.8	83			40 - 140	20
Endosulfan II	ND	0.50	79	74	6.5	81			40 - 140	20
Endosulfan sulfate	ND	0.50	73	71	2.8	75			40 - 140	20
Endrin	ND	0.50	77	77	0.0	81			40 - 140	20
Endrin aldehyde	ND	0.50	70	67	4.4	70			40 - 140	20
g-BHC	ND	0.15	77	76	1.3	82			40 - 140	20
Heptachlor	ND	0.50	75	74	1.3	79			40 - 140	20
Heptachlor epoxide	ND	0.50	68	67	1.5	72			40 - 140	20
Methoxychlor	ND	0.50	79	76	3.9	77			40 - 140	20
Toxaphene	ND	20	NA	NA	NC	NA			40 - 140	20
% DCBP	60	%	64	60	6.5	60			30 - 150	20
% DCBP (Confirmation)	55	%	61	61	0.0	62			30 - 150	20
% TCMX	54	%	67	61	9.4	67			30 - 150	20
% TCMX (Confirmation)	55	%	62	61	1.6	66			30 - 150	20
QA/QC Batch 687892 (ug/Kg), QC Sample No: CO55055 2X (CO52179, CO52180)										
Pesticides - Soil										
4,4' -DDD	ND	1.7	67	70	4.4	70	73	4.2	40 - 140	30
4,4' -DDE	ND	1.7	67	67	0.0	67	72	7.2	40 - 140	30
4,4' -DDT	ND	1.7	66	66	0.0	66	70	5.9	40 - 140	30

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
a-BHC	ND	1.0	65	63	3.1	64	68	6.1	40 - 140	30	
a-Chlordane	ND	3.3	60	63	4.9	64	67	4.6	40 - 140	30	
Aldrin	ND	1.0	65	66	1.5	66	71	7.3	40 - 140	30	
b-BHC	ND	1.0	69	68	1.5	68	73	7.1	40 - 140	30	
Chlordane	ND	33	62	65	4.7	64	69	7.5	40 - 140	30	
d-BHC	ND	3.3	67	60	11.0	59	63	6.6	40 - 140	30	
Dieldrin	ND	1.0	65	65	0.0	64	70	9.0	40 - 140	30	
Endosulfan I	ND	3.3	65	65	0.0	64	72	11.8	40 - 140	30	
Endosulfan II	ND	3.3	71	71	0.0	68	75	9.8	40 - 140	30	
Endosulfan sulfate	ND	3.3	73	75	2.7	73	78	6.6	40 - 140	30	
Endrin	ND	3.3	63	66	4.7	65	71	8.8	40 - 140	30	
Endrin aldehyde	ND	3.3	71	67	5.8	68	72	5.7	40 - 140	30	
Endrin ketone	ND	3.3	66	69	4.4	67	71	5.8	40 - 140	30	
g-BHC	ND	1.0	66	63	4.7	65	70	7.4	40 - 140	30	
g-Chlordane	ND	3.3	62	65	4.7	64	69	7.5	40 - 140	30	
Heptachlor	ND	3.3	64	63	1.6	64	68	6.1	40 - 140	30	
Heptachlor epoxide	ND	3.3	68	67	1.5	63	68	7.6	40 - 140	30	
Methoxychlor	ND	3.3	67	71	5.8	70	73	4.2	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	68	%	70	69	1.4	69	72	4.3	30 - 150	30	
% DCBP (Confirmation)	76	%	76	68	11.1	68	76	11.1	30 - 150	30	
% TCMX	61	%	60	57	5.1	59	62	5.0	30 - 150	30	
% TCMX (Confirmation)	64	%	65	63	3.1	57	63	10.0	30 - 150	30	
QA/QC Batch 687925 (ug/Kg), QC Sample No: CO55076 2X (CO52181)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	61	87	35.1	94	78	18.6	40 - 140	30	r
4,4' -DDE	ND	1.7	67	85	23.7	91	78	15.4	40 - 140	30	
4,4' -DDT	ND	1.7	65	82	23.1	89	77	14.5	40 - 140	30	
a-BHC	ND	1.0	67	81	18.9	80	71	11.9	40 - 140	30	
a-Chlordane	ND	3.3	67	79	16.4	85	72	16.6	40 - 140	30	
Aldrin	ND	1.0	68	82	18.7	86	76	12.3	40 - 140	30	
b-BHC	ND	1.0	65	82	23.1	90	73	20.9	40 - 140	30	
Chlordane	ND	33	68	80	16.2	88	75	16.0	40 - 140	30	
d-BHC	ND	3.3	59	73	21.2	82	70	15.8	40 - 140	30	
Dieldrin	ND	1.0	67	82	20.1	86	73	16.4	40 - 140	30	
Endosulfan I	ND	3.3	70	79	12.1	83	73	12.8	40 - 140	30	
Endosulfan II	ND	3.3	68	86	23.4	91	79	14.1	40 - 140	30	
Endosulfan sulfate	ND	3.3	61	91	39.5	96	81	16.9	40 - 140	30	r
Endrin	ND	3.3	67	83	21.3	89	76	15.8	40 - 140	30	
Endrin aldehyde	ND	3.3	64	83	25.9	84	71	16.8	40 - 140	30	
Endrin ketone	ND	3.3	60	82	31.0	87	75	14.8	40 - 140	30	r
g-BHC	ND	1.0	67	81	18.9	85	75	12.5	40 - 140	30	
g-Chlordane	ND	3.3	68	80	16.2	88	75	16.0	40 - 140	30	
Heptachlor	ND	3.3	65	77	16.9	79	69	13.5	40 - 140	30	
Heptachlor epoxide	ND	3.3	61	82	29.4	88	75	16.0	40 - 140	30	
Methoxychlor	ND	3.3	63	83	27.4	93	80	15.0	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	69	%	60	79	27.3	91	77	16.7	30 - 150	30	
% DCBP (Confirmation)	66	%	59	80	30.2	89	84	5.8	30 - 150	30	
% TCMX	56	%	64	66	3.1	73	65	11.6	30 - 150	30	
% TCMX (Confirmation)	58	%	61	70	13.7	72	69	4.3	30 - 150	30	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687697 (ug/L), QC Sample No: CO50574 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
Semivolatiles - TCLP											
1,4-Dichlorobenzene	ND	17	23	25	8.3	49			40 - 140	20	l
2,4,5-Trichlorophenol	ND	17	59	65	9.7	60			40 - 140	20	
2,4,6-Trichlorophenol	ND	17	58	75	25.6	70			30 - 130	20	r
2,4-Dinitrotoluene	ND	58	72	82	13.0	70			30 - 130	20	
2-Methylphenol (o-cresol)	ND	17	45	60	28.6	55			40 - 140	20	r
3&4-Methylphenol (m&p-cresol)	ND	17	47	62	27.5	54			30 - 130	20	r
Hexachlorobenzene	ND	58	69	77	11.0	74			40 - 140	20	
Hexachlorobutadiene	ND	58	26	28	7.4	66			40 - 140	20	l
Hexachloroethane	ND	58	20	23	14.0	46			40 - 140	20	l
Nitrobenzene	ND	58	43	57	28.0	55			40 - 140	20	r
Pentachlorophenol	ND	58	55	70	24.0	62			30 - 130	20	r
Pyridine	ND	83	42	50	17.4	36			40 - 140	20	m
% 2,4,6-Tribromophenol	94	%	67	75	11.3	74			15 - 110	20	
% 2-Fluorobiphenyl	75	%	44	60	30.8	56			30 - 130	20	r
% 2-Fluorophenol	69	%	44	52	16.7	47			15 - 110	20	
% Nitrobenzene-d5	74	%	42	58	32.0	49			30 - 130	20	r
% Phenol-d5	54	%	36	44	20.0	38			15 - 110	20	
% Terphenyl-d14	92	%	73	74	1.4	70			30 - 130	20	
Comment:											
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											
QA/QC Batch 687316 (ug/kg), QC Sample No: CO52392 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
Semivolatiles - Soil											
1,1-Biphenyl	ND	230	57	62	8.4	64	58	9.8	40 - 140	30	
1,2,4,5-Tetrachlorobenzene	ND	230	55	59	7.0	62	55	12.0	40 - 140	30	
2,2'-Oxybis(1-Chloropropane)	ND	230	62	65	4.7	74	58	24.2	40 - 140	30	
2,3,4,6-tetrachlorophenol	ND	230	72	79	9.3	81	77	5.1	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	69	74	7.0	77	74	4.0	40 - 140	30	
2,4,6-Trichlorophenol	ND	130	68	75	9.8	78	73	6.6	30 - 130	30	
2,4-Dichlorophenol	ND	130	62	66	6.3	70	63	10.5	30 - 130	30	
2,4-Dimethylphenol	ND	230	64	69	7.5	71	64	10.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	94	100	6.2	94	91	3.2	30 - 130	30	
2,4-Dinitrotoluene	ND	130	80	87	8.4	87	86	1.2	30 - 130	30	
2,6-Dinitrotoluene	ND	130	76	82	7.6	84	80	4.9	40 - 140	30	
2-Chloronaphthalene	ND	230	60	65	8.0	68	61	10.9	40 - 140	30	
2-Chlorophenol	ND	230	60	64	6.5	69	57	19.0	30 - 130	30	
2-Methylnaphthalene	ND	230	58	62	6.7	65	57	13.1	40 - 140	30	
2-Methylphenol (o-cresol)	ND	230	62	67	7.8	73	61	17.9	40 - 140	30	
2-Nitroaniline	ND	330	94	105	11.1	102	108	5.7	40 - 140	30	
2-Nitrophenol	ND	230	58	62	6.7	66	57	14.6	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	65	69	6.0	74	63	16.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	35	47	29.3	43	48	11.0	40 - 140	30	l
3-Nitroaniline	ND	330	58	66	12.9	67	77	13.9	40 - 140	30	
4,6-Dinitro-2-methylphenol	ND	230	89	96	7.6	96	92	4.3	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	65	70	7.4	70	69	1.4	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	71	76	6.8	79	74	6.5	30 - 130	30	
4-Chloroaniline	ND	230	51	52	1.9	49	56	13.3	40 - 140	30	
4-Chlorophenyl phenyl ether	ND	230	66	72	8.7	74	69	7.0	40 - 140	30	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Nitroaniline	ND	230	74	81	9.0	84	82	2.4	40 - 140	30	
4-Nitrophenol	ND	230	76	79	3.9	80	84	4.9	30 - 130	30	
Acenaphthene	ND	230	63	68	7.6	71	65	8.8	30 - 130	30	
Acenaphthylene	ND	130	58	63	8.3	64	59	8.1	40 - 140	30	
Acetophenone	ND	230	58	61	5.0	67	53	23.3	40 - 140	30	
Anthracene	ND	230	66	71	7.3	71	69	2.9	40 - 140	30	
Atrazine	ND	130	51	57	11.1	59	61	3.3	40 - 140	30	
Benz(a)anthracene	ND	230	66	72	8.7	71	69	2.9	40 - 140	30	
Benzaldehyde	ND	230	71	75	5.5	81	68	17.4	40 - 140	30	
Benzo(a)pyrene	ND	130	75	82	8.9	78	76	2.6	40 - 140	30	
Benzo(b)fluoranthene	ND	160	70	76	8.2	74	72	2.7	40 - 140	30	
Benzo(ghi)perylene	ND	230	71	77	8.1	70	64	9.0	40 - 140	30	
Benzo(k)fluoranthene	ND	230	64	68	6.1	67	64	4.6	40 - 140	30	
Benzyl butyl phthalate	ND	230	70	78	10.8	77	75	2.6	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	58	62	6.7	67	56	17.9	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	62	65	4.7	71	52	30.9	40 - 140	30	r
Bis(2-ethylhexyl)phthalate	ND	230	72	79	9.3	79	77	2.6	40 - 140	30	
Caprolactam	ND	230	69	74	7.0	72	71	1.4	40 - 140	30	
Carbazole	ND	230	67	72	7.2	71	71	0.0	40 - 140	30	
Chrysene	ND	230	68	75	9.8	75	73	2.7	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	69	75	8.3	70	64	9.0	40 - 140	30	
Dibenzofuran	ND	230	62	66	6.3	68	64	6.1	40 - 140	30	
Diethyl phthalate	ND	230	68	75	9.8	75	73	2.7	40 - 140	30	
Dimethylphthalate	ND	230	67	73	8.6	74	71	4.1	40 - 140	30	
Di-n-butylphthalate	ND	670	68	75	9.8	74	72	2.7	40 - 140	30	
Di-n-octylphthalate	ND	230	77	84	8.7	83	81	2.4	40 - 140	30	
Fluoranthene	ND	230	64	71	10.4	70	68	2.9	40 - 140	30	
Fluorene	ND	230	73	80	9.2	82	77	6.3	40 - 140	30	
Hexachlorobenzene	ND	130	66	70	5.9	69	68	1.5	40 - 140	30	
Hexachlorobutadiene	ND	230	56	60	6.9	65	54	18.5	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	59	61	3.3	62	47	27.5	40 - 140	30	
Hexachloroethane	ND	130	55	58	5.3	64	49	26.5	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	72	80	10.5	72	65	10.2	40 - 140	30	
Isophorone	ND	130	55	59	7.0	62	55	12.0	40 - 140	30	
Naphthalene	ND	230	58	61	5.0	66	55	18.2	40 - 140	30	
Nitrobenzene	ND	130	62	67	7.8	72	58	21.5	40 - 140	30	
N-Nitrosodimethylamine	ND	230	63	65	3.1	72	56	25.0	40 - 140	30	
N-Nitrosodi-n-propylamine	ND	130	63	68	7.6	73	59	21.2	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	66	72	8.7	74	71	4.1	40 - 140	30	
Pentachlorophenol	ND	230	86	94	8.9	92	93	1.1	30 - 130	30	
Phenanthrene	ND	130	66	72	8.7	71	69	2.9	40 - 140	30	
Phenol	ND	230	63	68	7.6	71	63	11.9	30 - 130	30	
Pyrene	ND	230	64	69	7.5	68	68	0.0	30 - 130	30	
% 2,4,6-Tribromophenol	83	%	68	75	9.8	74	74	0.0	30 - 130	30	
% 2-Fluorobiphenyl	64	%	54	58	7.1	61	55	10.3	30 - 130	30	
% 2-Fluorophenol	52	%	54	59	8.8	62	50	21.4	30 - 130	30	
% Nitrobenzene-d5	67	%	57	61	6.8	67	53	23.3	30 - 130	30	
% Phenol-d5	61	%	60	64	6.5	67	58	14.4	30 - 130	30	
% Terphenyl-d14	62	%	57	62	8.4	60	61	1.7	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 687590 (ug/L), QC Sample No: CO51716 (CO52178 (10X) , CO52179 (10X) , CO52180 (10X) , CO52181 (10X) , CO52182 (10X) , CO52183 (10X) , CO52184 (10X) , CO52185 (10X))											
Volatiles - TCLP											
1,1-Dichloroethene	ND	5.0	109	108	0.9	129	128	0.8	70 - 130	30	
1,2-Dichloroethane	ND	0.60	102	102	0.0	116	114	1.7	70 - 130	30	
Benzene	ND	0.70	107	105	1.9	122	119	2.5	70 - 130	30	
Carbon tetrachloride	ND	5.0	130	132	1.5	101	116	13.8	70 - 130	30	l
Chlorobenzene	ND	1.0	105	103	1.9	118	117	0.9	70 - 130	30	
Chloroform	ND	5.0	103	103	0.0	118	117	0.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	105	98	6.9	118	122	3.3	70 - 130	30	
Tetrachloroethene	ND	1.0	111	108	2.7	124	126	1.6	70 - 130	30	
Trichloroethene	ND	5.0	107	103	3.8	124	121	2.4	70 - 130	30	
Vinyl chloride	ND	5.0	112	110	1.8	136	133	2.2	70 - 130	30	m
% 1,2-dichlorobenzene-d4	99	%	100	99	1.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	102	102	0.0	108	105	2.8	70 - 130	30	
% Dibromofluoromethane	100	%	100	100	0.0	100	100	0.0	70 - 130	30	
% Toluene-d8	96	%	100	100	0.0	102	101	1.0	70 - 130	30	
Comment:											
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.											
QA/QC Batch 687395 (ug/kg), QC Sample No: CO51901 (CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185)											
Volatiles - Soil (Low Level)											
1,1,1-Trichloroethane	ND	5.0	98	96	2.1	100	100	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	93	91	2.2	70	69	1.4	70 - 130	30	m
1,1,2-Trichloroethane	ND	5.0	93	92	1.1	92	92	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	102	99	3.0	104	105	1.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	98	97	1.0	97	98	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	95	93	2.1	63	57	10.0	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	87	85	2.3	86	87	1.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	90	89	1.1	63	59	6.6	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	89	86	3.4	79	75	5.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	105	100	4.9	83	82	1.2	70 - 130	30	
1,2-Dibromoethane	ND	5.0	92	89	3.3	88	90	2.2	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	95	93	2.1	82	80	2.5	70 - 130	30	
1,2-Dichloroethane	ND	5.0	95	95	0.0	96	97	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	95	94	1.1	96	97	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	94	92	2.2	85	80	6.1	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	92	91	1.1	80	76	5.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	92	91	1.1	90	92	2.2	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	95	92	3.2	81	78	3.8	70 - 130	30	
1,4-dioxane	ND	100	93	87	6.7	92	92	0.0	70 - 130	30	
2-Hexanone	ND	25	86	86	0.0	81	80	1.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	96	94	2.1	91	90	1.1	70 - 130	30	
Acetone	ND	10	74	73	1.4	71	70	1.4	70 - 130	30	
Benzene	ND	1.0	90	89	1.1	89	88	1.1	70 - 130	30	
Bromochloromethane	ND	5.0	94	91	3.2	93	95	2.1	70 - 130	30	
Bromodichloromethane	ND	5.0	96	95	1.0	95	97	2.1	70 - 130	30	
Bromoform	ND	5.0	93	91	2.2	83	84	1.2	70 - 130	30	
Bromomethane	ND	5.0	108	105	2.8	111	110	0.9	70 - 130	30	
Carbon Disulfide	ND	5.0	91	90	1.1	88	89	1.1	70 - 130	30	
Carbon tetrachloride	ND	5.0	101	99	2.0	99	98	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chlorobenzene	ND	5.0	94	92	2.2	90	90	0.0	70 - 130	30	
Chloroethane	ND	5.0	101	97	4.0	102	109	6.6	70 - 130	30	
Chloroform	ND	5.0	92	91	1.1	92	95	3.2	70 - 130	30	
Chloromethane	ND	5.0	104	102	1.9	105	108	2.8	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	95	3.1	97	103	6.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	99	98	1.0	96	97	1.0	70 - 130	30	
Cyclohexane	ND	5.0	94	93	1.1	92	85	7.9	70 - 130	30	
Dibromochloromethane	ND	3.0	94	93	1.1	89	92	3.3	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	107	105	1.9	111	108	2.7	70 - 130	30	
Ethylbenzene	ND	1.0	90	88	2.2	87	84	3.5	70 - 130	30	
Isopropylbenzene	ND	1.0	97	96	1.0	91	87	4.5	70 - 130	30	
m&p-Xylene	ND	2.0	88	86	2.3	85	83	2.4	70 - 130	30	
Methyl ethyl ketone	ND	5.0	87	88	1.1	81	79	2.5	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	90	89	1.1	88	88	0.0	70 - 130	30	
Methylacetate	ND	5.0	95	95	0.0	87	87	0.0	70 - 130	30	
Methylcyclohexane	ND	5.0	97	95	2.1	89	75	17.1	70 - 130	30	
Methylene chloride	ND	5.0	80	80	0.0	80	82	2.5	70 - 130	30	
n-Butylbenzene	ND	1.0	100	97	3.0	81	69	16.0	70 - 130	30	m
n-Propylbenzene	ND	1.0	97	94	3.1	89	82	8.2	70 - 130	30	
o-Xylene	ND	2.0	89	87	2.3	85	84	1.2	70 - 130	30	
p-Isopropyltoluene	ND	1.0	97	95	2.1	83	73	12.8	70 - 130	30	
sec-Butylbenzene	ND	1.0	96	94	2.1	84	73	14.0	70 - 130	30	
Styrene	ND	5.0	87	85	2.3	82	82	0.0	70 - 130	30	
tert-Butylbenzene	ND	1.0	97	95	2.1	87	80	8.4	70 - 130	30	
Tetrachloroethene	ND	5.0	97	95	2.1	95	88	7.7	70 - 130	30	
Toluene	ND	1.0	94	92	2.2	92	91	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	98	97	1.0	94	99	5.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	98	98	0.0	93	96	3.2	70 - 130	30	
Trichloroethene	ND	5.0	98	97	1.0	111	113	1.8	70 - 130	30	
Trichlorofluoromethane	ND	5.0	104	103	1.0	105	107	1.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	87	87	0.0	86	84	2.4	70 - 130	30	
Vinyl chloride	ND	5.0	109	106	2.8	112	114	1.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	96	%	103	102	1.0	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	99	%	100	100	0.0	99	100	1.0	70 - 130	30	
% Dibromofluoromethane	102	%	99	98	1.0	98	95	3.1	70 - 130	30	
% Toluene-d8	92	%	101	102	1.0	102	101	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 687618H (ug/kg), QC Sample No: CO52186 50X (CO52180 (50X))

Volatiles - Soil (High Level)

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
p-Isopropyltoluene	ND	250	108	111	2.7	98	110	11.5	70 - 130	30	
% 1,2-dichlorobenzene-d4	95	%	101	102	1.0	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Dibromofluoromethane	93	%	93	96	3.2	96	96	0.0	70 - 130	30	
% Toluene-d8	92	%	102	103	1.0	101	101	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

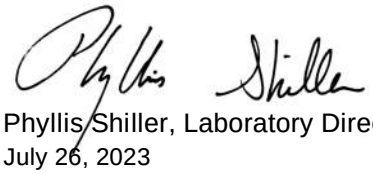
QA/QC Data

SDG I.D.: GCO52178

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference



Phyllis Shiller, Laboratory Director
July 26, 2023

Wednesday, July 26, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO52178 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO52179	$8260_TCL_SM	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	84	50	50	50	ug/kg
CO52179	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	550	250	500	500	ug/Kg
CO52179	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	550	250	500	500	ug/Kg
CO52179	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.9	2.2	3.3	3.3	ug/Kg
CO52179	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	7.2	2.2	3.3	3.3	ug/Kg
CO52179	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	75.9	0.40	63	63	mg/Kg
CO52180	$8260_TCL_SM	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	89	50	50	50	ug/kg
CO52180	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1300	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	670	270	500	500	ug/Kg
CO52180	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1500	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1300	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1400	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1300	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1500	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1500	270	1000	1000	ug/Kg
CO52180	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	670	270	500	500	ug/Kg
CO52180	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1400	270	1000	1000	ug/Kg
CO52180	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.9	2.3	3.3	3.3	ug/Kg
CO52180	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	6.5	2.3	3.3	3.3	ug/Kg
CO52180	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.21	0.03	0.18	0.18	mg/Kg
CO52181	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	550	260	500	500	ug/Kg
CO52181	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	550	260	500	500	ug/Kg
CO52181	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	0.93	0.03	0.81	0.81	mg/Kg
CO52181	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.93	0.03	0.18	0.18	mg/Kg
CO52181	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	159	0.40	63	63	mg/Kg
CO52182	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	14	2.3	3.3	3.3	ug/Kg
CO52184	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1700	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	970	260	500	500	ug/Kg
CO52184	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1800	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1700	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1700	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1800	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1800	260	1000	1000	ug/Kg
CO52184	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	970	260	500	500	ug/Kg
CO52184	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	260	1000	1000	ug/Kg
CO52184	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	84.2	0.7	50	50	mg/kg
CO52184	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.66	0.03	0.18	0.18	mg/Kg
CO52184	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	375	3.4	63	63	mg/Kg

Wednesday, July 26, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO52178 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO52184	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	253	6.8	109	109	mg/Kg
CO52185	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Commercial	9300	1400	5600	5600	ug/Kg
CO52185	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Commercial	20000	1400	5600	5600	ug/Kg
CO52185	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	23000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	2100	200	560	560	ug/Kg
CO52185	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Commercial	23000	1400	5600	5600	ug/Kg
CO52185	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	9300	1400	500	500	ug/Kg
CO52185	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	2100	200	330	330	ug/Kg
CO52185	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Residential Restricted	19000	1400	3900	3900	ug/Kg
CO52185	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	4800	280	3900	3900	ug/Kg
CO52185	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	23000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	23000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	20000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	4800	280	800	800	ug/Kg
CO52185	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	19000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	23000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2100	200	330	330	ug/Kg
CO52185	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	20000	1400	1000	1000	ug/Kg
CO52185	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	9300	1400	500	500	ug/Kg
CO52185	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	23000	1400	1000	1000	ug/Kg
CO52185	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	8.0	2.4	3.3	3.3	ug/Kg
CO52185	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	28.7	0.75	16	16	mg/Kg
CO52185	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential Restricted	28.7	0.75	16	16	mg/Kg
CO52185	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	28.7	0.75	13	13	mg/Kg
CO52185	CU-SM	Copper	NY / 375-6.8 Metals / Commercial	675	7.5	270	270	mg/kg
CO52185	CU-SM	Copper	NY / 375-6.8 Metals / Residential Restricted	675	7.5	270	270	mg/kg
CO52185	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	675	7.5	50	50	mg/kg
CO52185	HG-SM	Mercury	NY / 375-6.8 Metals / Commercial	4.68	0.15	2.8	2.8	mg/Kg
CO52185	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	4.68	0.15	0.81	0.81	mg/Kg
CO52185	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	4.68	0.15	0.18	0.18	mg/Kg
CO52185	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	2250	38	1000	1000	mg/Kg
CO52185	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	2250	38	400	400	mg/Kg
CO52185	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	2250	38	63	63	mg/Kg
CO52185	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	8.47	0.10	5	5	mg/L
CO52185	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	569	7.5	109	109	mg/Kg

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

July 26, 2023 SDG I.D.: GCO52178

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

Herbicide Narration

AU-ECD2 07/18/23-1: CO52178, CO52179, CO52180, CO52181

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO52178, CO52179, CO52180, CO52181
Preceding CC 718A015 - None.
Succeeding CC 718A027 - Dinoseb 20%H (15%)
Samples: CO52178, CO52179, CO52180, CO52181
Preceding CC 718B015 - 2,4-DB (12) 22%H (15%)
Succeeding CC 718B027 - 2,4-DB (12) 24%H (15%)

AU-ECD2 07/19/23-1: CO52182, CO52183, CO52184, CO52185

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO52182
Preceding CC 719A003 - Dinoseb 23%H (15%)
Succeeding CC 719A016 - Dinoseb 26%H (15%)
Samples: CO52183, CO52184, CO52185
Preceding CC 719A016 - Dinoseb 26%H (15%)
Succeeding CC 719A028 - Dinoseb 30%H (15%)

PEST Narration

AU-ECD33 07/19/23-1: CO52178, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO52178, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185
Preceding CC 719B021 - Endosulfan sulfate 21%L (20%), Heptachlor epoxide 23%L (20%)
Succeeding CC 719B034 - Heptachlor epoxide 24%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

AU-ECD33 07/24/23-1: CO52179

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO52179
Preceding CC 724B004 - Heptachlor epoxide 21%L (20%)
Succeeding CC 724B020 - None.
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

AU-ECD35 07/19/23-1: CO52182, CO52183, CO52184, CO52185

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO52182, CO52183, CO52184, CO52185
Preceding CC 719B018 - % DCBP 36%L (20%), Endrin Ketone 26%L (20%)
Succeeding CC 719B031 - % DCBP 38%L (20%), Endrin Ketone 26%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM19 07/17/23-1: CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185

Environmental Laboratories, Inc.
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NY # 11301

Analysis Comments

July 26, 2023 SDG I.D.: GCO52178

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet RSD% criteria: % Terphenyl-d14 21% (20%), 2-Chloronaphthalene 21% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: % 2,4,6-Tribromophenol 0.045 (0.05), 2-Nitrophenol 0.062 (0.1), Hexachlorobenzene 0.083 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: % 2,4,6-Tribromophenol 0.045 (0.05)

The following Continuing Calibration compounds did not meet recommended response factors: % 2,4,6-Tribromophenol 0.047 (0.05), 2-Nitrophenol 0.060 (0.1), Hexachlorobenzene 0.078 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM29 07/20/23-1: CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.075 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.082 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM14 07/17/23-2: CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 30% (20%), Methylene chloride 27% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Acetone 0.098 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM16 07/18/23-1: CO52178, CO52179, CO52180, CO52181, CO52182, CO52183, CO52184, CO52185

Chem16 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments. EPA method 8260D Table 4 supports this approach.

The following Initial Calibration compounds did not meet RSD% criteria: Carbon tetrachloride 22% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

July 26, 2023

SDG I.D.: GCO52178

The samples in this delivery group were received at 1.4°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐

NY/NJ/PA CHAIN OF CUSTODY RECORD

Temp 1.4 °C Pg 1 of 1

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: Makrina Nolan, makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Contact Options:
☐ Phone:
☐ Fax: pendayenveng@optonline.net
☑ Email: cmpendergast@aol.com

Customer: AES
Address: 42 West Avenue
Patchogue, NY 11772

Project: EAST SIDE COASTAL RESILIENCY Project P.O: 0987
Report to: AES
Invoice to: AES
QUOTE # : AE090921BA

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 7/14/23

Client Sample - Information - Identification

Analysis Request

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	*MS/MSD (May be billable at analysis unit rate)	TAL/TCL+30+NY add	Full TCLP	Herbs	Tri + Hex Chromium	RIC	NJEPH	TPH DRO/GRO	GL Amber 8 oz. [ ] w/H_3PO_4 [ ] $NAHSO_4$	Soil VOA Vials [ ] methanol [ ] H_2O	GL Soil container (8) oz	GL Soil container (4) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H_2SO_4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H_2SO_4 [ ] 250ml [ ] 500ml	PL NAOH 250ml	PL HNO_3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
52178	FWPD-1	S	7.14.23	7:45		X	X	X	X	X	X	X			2	1	3							
52179	FWPD-2	↓	↓	7:40		↓	↓	↓	↓	↓	↓	↓			↓	↓	↓							
52180	FWPD-3			7:35																				
52181	FWPD-4			7:30																				
52182	JG-6			8:30																				
52183	JG-7			8:40																				
52184	Oil-25B			9:10																				
52185	Oil-25A	↓	↓	9:05		↓	↓	↓	↓	↓	↓	↓			↓	↓	↓							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	7/17/23	1412
[signature]	[signature]	7.17.23	1644

Comments, Special Requirements or Regulations:

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

Data Format:
☐ Phoenix Std Report ☐ EQuIS
☑ Excel ☐ NJ Hazsite EDD
☑ PDF ☐ NY EZ EDD (ASP)
☐ GIS/Key ☐ Other

Turnaround:
☐ 1 Day*
☐ 2 Days*
☑ 3 Days*
☐ 4 Days*
☐ 5 Days*
☐ Standard
* SURCHARGE APPLIES

Data Package:
☐ NJ Reduced Deliv. * ☐ Other
☐ NY Enhanced (ASP B) *

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

NY
☐ TOGS GW
☐ CP-51 SOIL
☑ 375SCO Unrestricted Soil
☐ 375SCO Residential Soil
☑ 375SCO Residential Restricted Soil
☑ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

PA
☐ Clean Fill Limits
☐ PA-GW
☐ Reg Fill Limits
☐ PA Soil Restricted
☐ PA Soil non-restricted

State Samples Collected? NY

PEL-111 Rev 1/2023

Sarah Bell

From: Eileen Pendergast <empendergast@aol.com>
Sent: Friday, July 21, 2023 4:00 PM
To: Sarah Bell
Subject: Re: GCO52178

Hi Again

Just checking to see if you got the email this morning -

Can you please re-run total and TCLP lead on sample
CO52185

They want to check that result

Have a great weekend!!
Eileen
AES
42 West Avenue
Patchogue, NY 11772
(631) 475-0020

On Friday, July 21, 2023 at 03:45:57 PM EDT, Sarah Bell <sarah@phoenixlabs.com> wrote:

Sarah Bell
Project Manager

Phoenix Environmental Laboratories
587 East Middle Turnpike

Sarah@phoenixlabs.com

860-812-0270
Website: www.phoenixlabs.com