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
30-30 Thomson Avenue, 3rd Floor
Long Island City, New York 11101

On behalf of:

IPC Resiliency Partners
1010 Northern Boulevard, Suite 200
Great Neck, NY 11021

Prepared by:

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Patchogue, New York 11772
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AES Project No. 0897

SEPTEMBER 20, 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 August 28th, 2023. Ten soil samples were collected from stockpiled soil and from test pits. A description of soil samples collected is shown below:

- Samples DMSP-1, DMSP-2 and DMSP-3 were collected from stockpiled soils that were generated during excavation for pre-trenching in Reach D. DMSP-1 and DMSP-2 are stockpiled in Reach C.

- Samples FG-4, FG-5, FG-6, FG-7, FG-8, FG-9 and FG-10 were collected from test pits excavated to 7 ftbg in locations of proposed piles and pre-trenching along FDR Drive and Montgomery Street.

Sampling Locations are shown on Figures 2a – 2d. 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 Commercial Soil Cleanup Objectives (CSCOs) and two samples (DMSP-2 and FG-7) contained concentrations of lead exceeding the RCRA Hazardous Waste Characteristic Regulatory Level. Compound exeedances are shown on Tables 1 and 2.

Initial laboratory analysis indicated the stockpile sample collected from DMSP-2 exhibited a total lead concentration of 489 parts per million (ppm) and a TCLP lead concentration of 6.35 mg/L. A TCLP result as high as 6.35 mg/L with total lead detected at only 489 ppm is atypical. The sample was re-analyzed for total lead and TCLP lead by Phoenix Environmental Laboratories, Inc. in order to verify the hazardous result. The re-analysis indicated total lead was detected at 3640 ppm and TCLP lead was detected at .27 mg/L, a non-hazardous concentration. The Lab Director of Phoenix Environmental Labs indicated the sample matrix and homogeneity of the sampled material were the reason for the inconsistency in results.

Comments:

- Analytical results compared to applicable criteria are presented in Tables 1 and 2. A number of sampling locations (DMSP-1, DMSP-2, DMSP-3, FG-4, FG-8, FG-9, FG-10) exhibited exceedances of CSCOs. Exceedances of CSCOs are highlighted in yellow on Table 1. 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 FG-7 at a concentration of 28.8 mg/L and DMSP-2 at a concentration of 6.35 mg/L. Re-analysis of sample DMSP-2 indicated TCLP was detected at .27 mg/L and the material is non-hazardous. TCLP results are summarized in Table 2.

3.0 CONCLUSIONS AND RECOMMENDATIONS

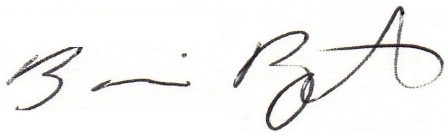
Based on review and evaluation of analytical data and field screening, the following findings, conclusions and recommendations are presented:

- Laboratory analytical results indicated soil sample FG-7 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 and barium 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.

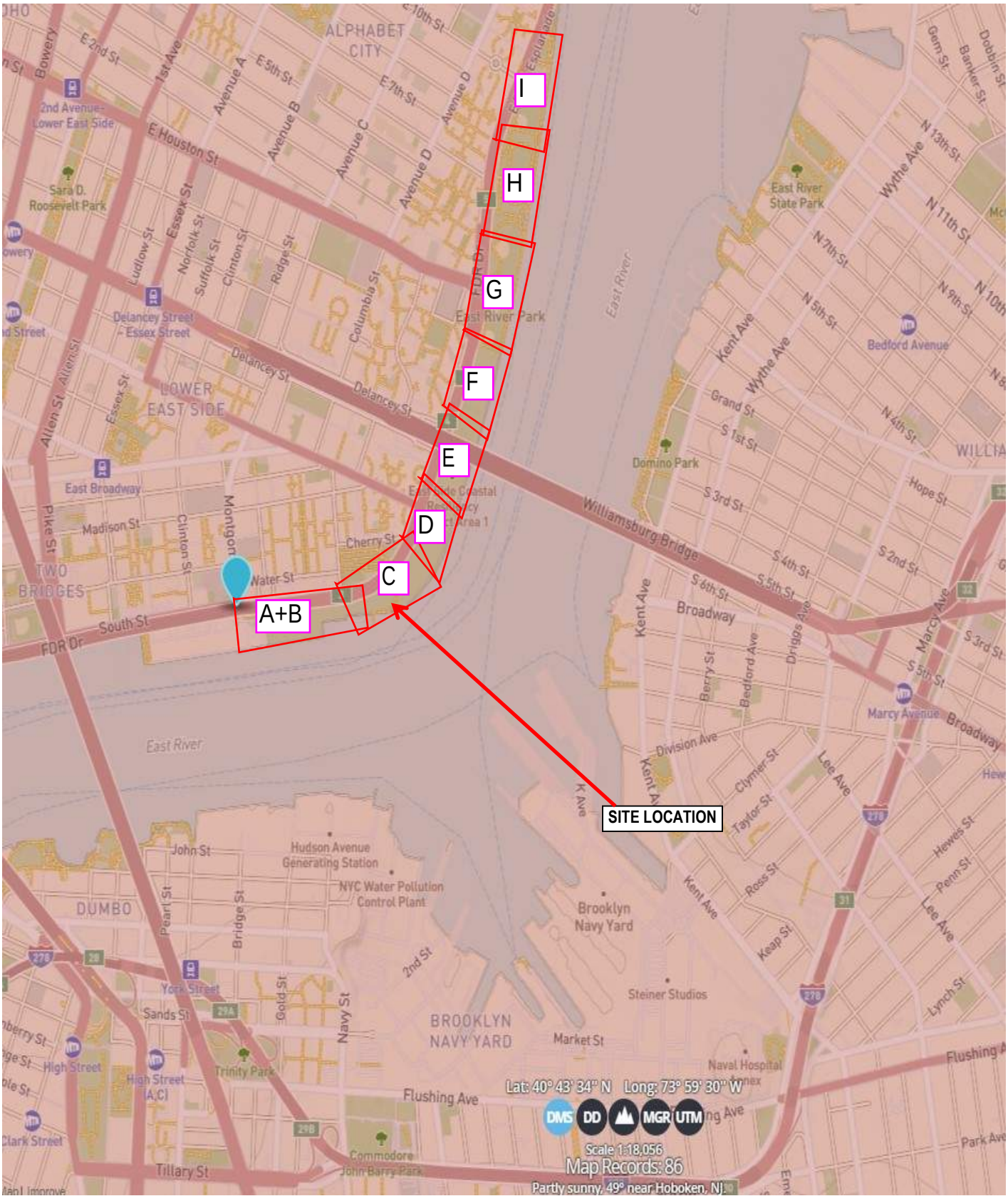
- The soil analytical results should be presented to disposal facilities for classification and acceptance in accordance with the individual permit requirements and State and Federal regulations.

Report prepared by:



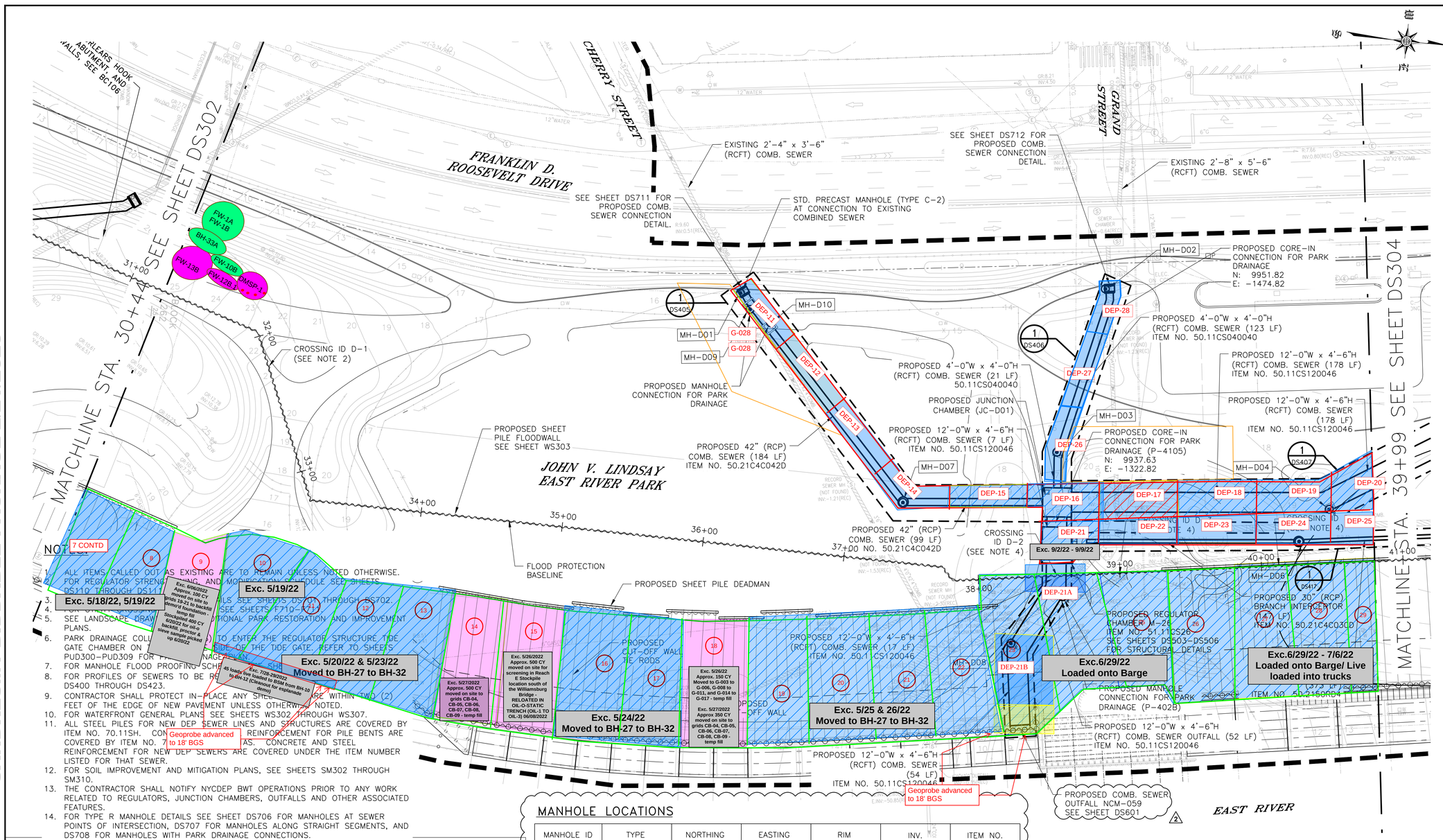
Brian Pendergast
Environmental Project Manager

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 MODIFICATION SCHEDULE SEE SHEETS DS110 THROUGH DS111.
3. FOR REGULATOR DETAILS SEE SHEETS DS501 THROUGH DS502.
4. FOR STRUCTURAL DETAILS SEE SHEETS F710-F711.
5. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL PARK RESTORATION AND IMPROVEMENT PLANS.
6. PARK DRAINAGE COLLECTED WILL BE PIPED TO ENTER THE REGULATOR STRUCTURE TIDE GATE CHAMBER ON THE RIVER SIDE OF THE TIDE GATE. REFER TO SHEETS PUD300-PUD309 FOR PARK DRAINAGE PLANS.
7. FOR MANHOLE FLOOD PROOFING SCHEDULE SEE SHEET DS400.
8. FOR PROFILES OF SEWERS TO BE RECONSTRUCTED SEE SHEETS DS400 THROUGH DS423.
9. CONTRACTOR SHALL PROTECT IN-PLACE ANY SHEET PILE 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 AND REINFORCEMENT FOR PILE BENTS ARE COVERED BY ITEM NO. 70.11CA. 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

PROPOSED COMB. SEWER

LIMIT OF WORK

MH-XXX (R) PROPOSED MANHOLE RISER

MH-XXX PROPOSED MANHOLE

SCALE: 1" = 30'

FOR BID

SUBMITTED DATE: 2/21/2020

NO.	DATE	DESCRIPTIONS	BY	APPR'D
		REVISIONS		
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 — JOHN C. STOODLEY — 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

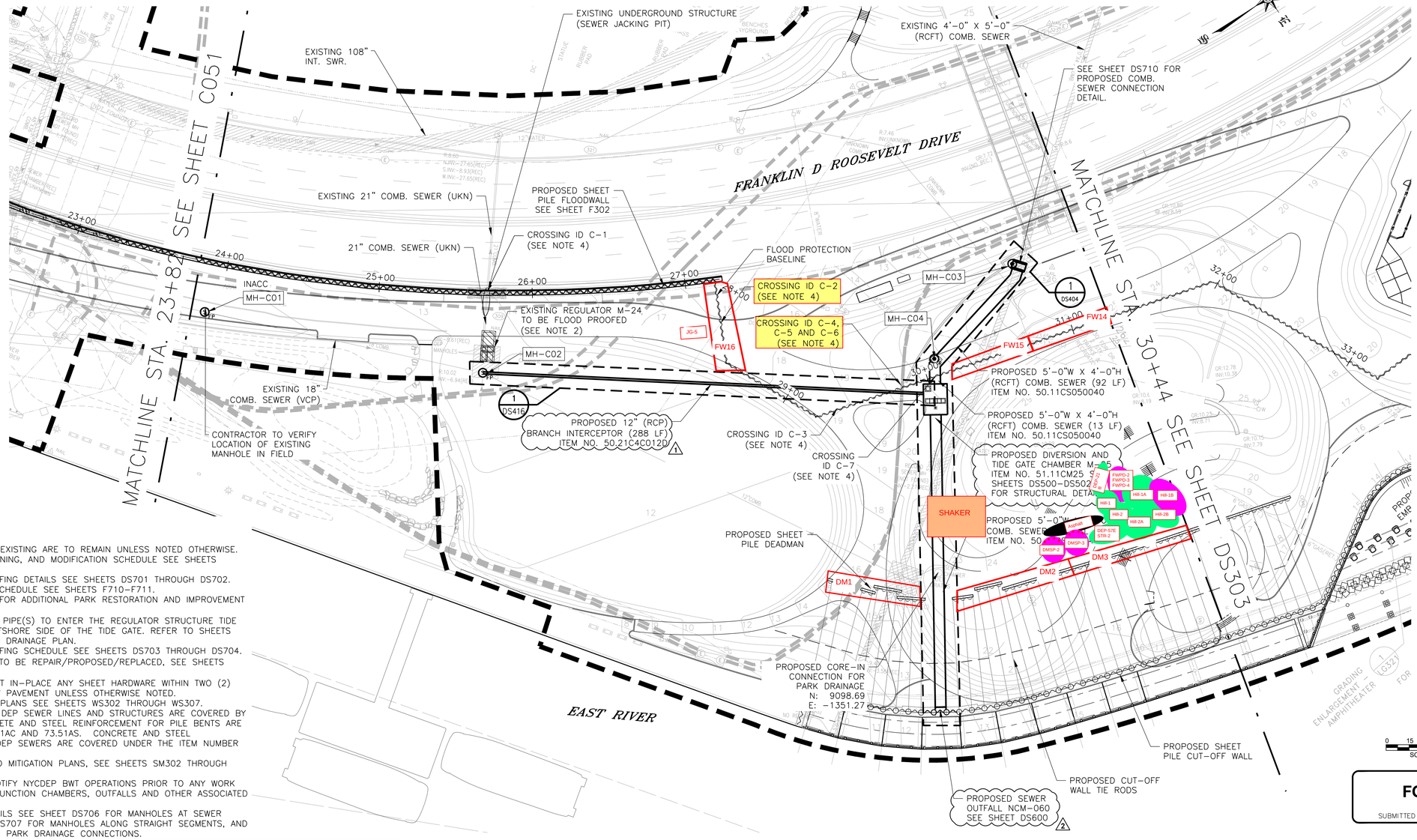
CAPITAL PROJECT NO. SANDRESM1 2/21/20

SHEET 1190 OF 2791

DS303

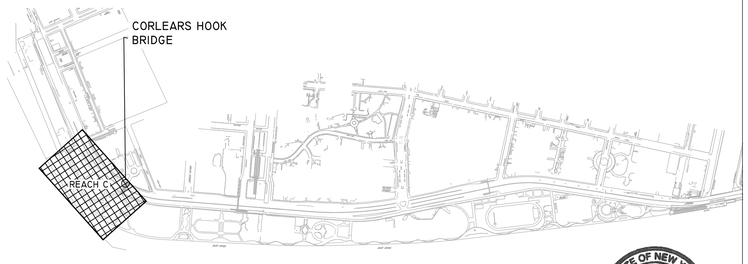
CONSULTANT DESIGN

SANDRESM1 BIDDABLE PACKAGE 2/21/2020



NOTES:

1. ALL ITEMS CALLED OUT AS EXISTING ARE TO REMAIN UNLESS NOTED OTHERWISE.
2. FOR REGULATOR STRENGTHENING, AND MODIFICATION SCHEDULE SEE SHEETS DS110 THROUGH DS111.
3. FOR MANHOLE FLOOD PROOFING DETAILS SEE SHEETS DS701 THROUGH DS702.
4. FOR UTILITY CROSSING ID SCHEDULE SEE SHEETS F710-F711.
5. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL PARK RESTORATION AND IMPROVEMENT PLANS.
6. PARK DRAINAGE COLLECTOR PIPE(S) TO ENTER THE REGULATOR STRUCTURE TIDE GATE CHAMBER ON THE OFFSHORE SIDE OF THE TIDE GATE. REFER TO SHEETS PUD300-PUD309 FOR PARK DRAINAGE PLAN.
7. FOR MANHOLE FLOOD PROOFING SCHEDULE SEE SHEETS DS703 THROUGH DS704.
8. FOR PROFILES OF SEWERS TO BE REPAIR/PROPOSED/REPLACED, SEE SHEETS DS400 THROUGH DS423.
9. CONTRACTOR SHALL PROTECT IN-PLACE ANY SHEET HARDWARE 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 AND STEEL REINFORCEMENT FOR PILE BENTS ARE COVERED BY ITEM NO. 73.21AC AND 73.51AS. 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.



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RCFT	REINFORCED CONCRETE (FLAT TOP)
COMB. SEWER	COMBINED SEWER
UKN	UNKNOWN MATERIAL
INACC	MANHOLE WAS INACCESSIBLE
CSO	COMBINED SEWER OVERFLOW
SWO	STORM WATER OUTFALL

MH-XXX — EXISTING MANHOLE TO BE FLOODPROOFED. SEE SHEETS DS701-DS702

PROPOSED COMB. SEWER

DEP SEWER REGULATOR STRUCTURE TO BE FLOODPROOFED

LIMIT OF WORK

MH-XXX — PROPOSED MANHOLE RISER

MANHOLE LOCATIONS

MANHOLE ID	TYPE	NORTHING	EASTING	RIM	INV.	ITEM NO.
MH-C01	FLOODPROOF	8812.49	-1771.28	UNKNOWN	UNKNOWN	51.22RM.C01
MH-C02	FLOODPROOF	8935.69	-1632.04	13.40	-4.60	51.22RM.C02
MH-C03	CONNECTION	9256.59	-1485.66	15.36	-1.22	51.11V000
MH-C04	TYPE-R	9179.00	-1465.61	21.75	-1.28	51.21S0C2060C

FOR BID

SUBMITTED DATE: 2/21/2020

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		REVISIONS		
2	7-27-20	UPDATED DRAWINGS	ARCADIS	
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DEP SEWER PLAN
SEGMENT 1 - REACH C
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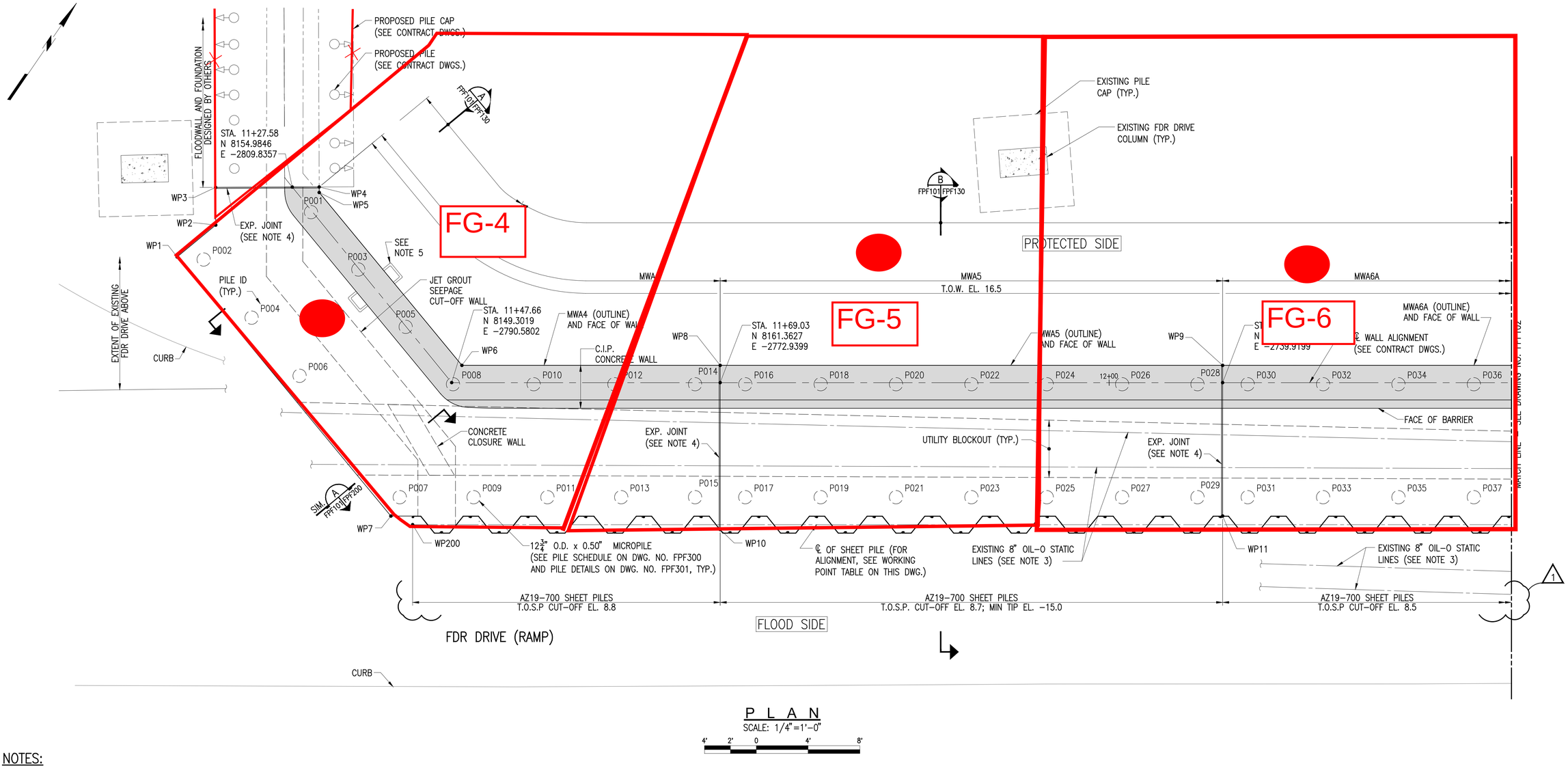
ARCADIS — DRAWN BY
SANDRESM1-DS302-00.DWG — CADD FILE

INSTALLATION OF
EAST SIDE COASTAL RESILIENCY
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 2/21/20

SHEET 1189 OF 2791 — DS302

CONSULTANT DESIGN



PLAN
SCALE: 1/4"=1'−0"

4' 2' 0 4' 8'

NOTES:

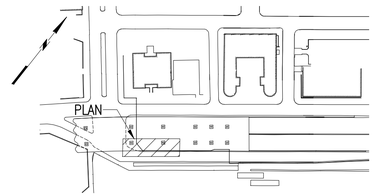
1. FOR GENERAL NOTES, SEE DRAWING NOS. FPF001 AND FPF002.
2. ONLY KNOWN UTILITIES ARE IDENTIFIED ON THESE DRAWINGS.
3. OIL−O STATIC LINE LOCATIONS SHOWN ARE BASED ON IPC SKETCHES FOR FIELD TEST PITS 1, 2 AND 3 DATED MARCH 28, 2022, MARCH 30, 2022, AND MARCH 31, 2022 RESPECTIVELY, AND TEST PIT LOCATION PLAN DATED APRIL 1, 2022. OIL−O STATIC LINE LOCATION SOUTH OF TEST PIT 1 ARE PROJECTED. PRIOR TO START OF WORK, FIELD SURVEYED LOCATIONS OF EXISTING UTILITIES SHALL BE SUBMITTED FOR REVIEW.
4. FOR TYPICAL EXPANSION JOINT DETAILS, SEE DRAWING NO. FPF200.
5. INSTALL LADDER AND ATTACHMENTS PER CONTRACT DRAWINGS.

LEGEND:

MWA − MONOLITH PILE CAP

PILE CAP WORKING POINT COORDINATE TABLE

WORKING POINT DESIGNATION	NORTHING	EASTING
WP1	8145.2196	−2814.2707
WP2	8149.0497	−2813.1651
WP3	8151.5193	−2814.8684
WP4	8156.2035	−2808.0772
WP5	8155.8422	−2807.8280
WP6	8150.8943	−2790.6874
WP7	8137.8047	−2788.5838
WP8	8162.5003	−2773.7123
WP9	8185.0764	−2740.6922
WP10	8151.7131	−2766.3370
WP11	8175.1764	−2733.9235
WP200	8138.2118	−2786.7661



KEY PLAN

STATE OF NEW YORK · SIOTAW Y PANTER · 080805 · LICENSED PROFESSIONAL ENGINEER

REV.	DATE	BY	DESCRIPTION
1	01−18−23	A.C.	REVISED T.O.S.P. CUT−OFF ELEVATIONS

NYC DDC
EAST SIDE COASTAL RESILIENCY
NEW YORK NEW YORK

IPC RESILIENCY PARTNERS
WHITESTONE NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS
14 PENN PLAZA − 225 W. 34TH STREET, NY, NY 10122

SCALE	MADE BY: E.D.	DATE: 10−25−2022	FILE NUMBER
AS NOTED	CH'KD BY: A.C.	DATE: 10−25−2022	14378

ALTERNATE FOUNDATION
ENLARGED PLAN
SHEET 1 OF 2

DRAWING NUMBER
FPF101

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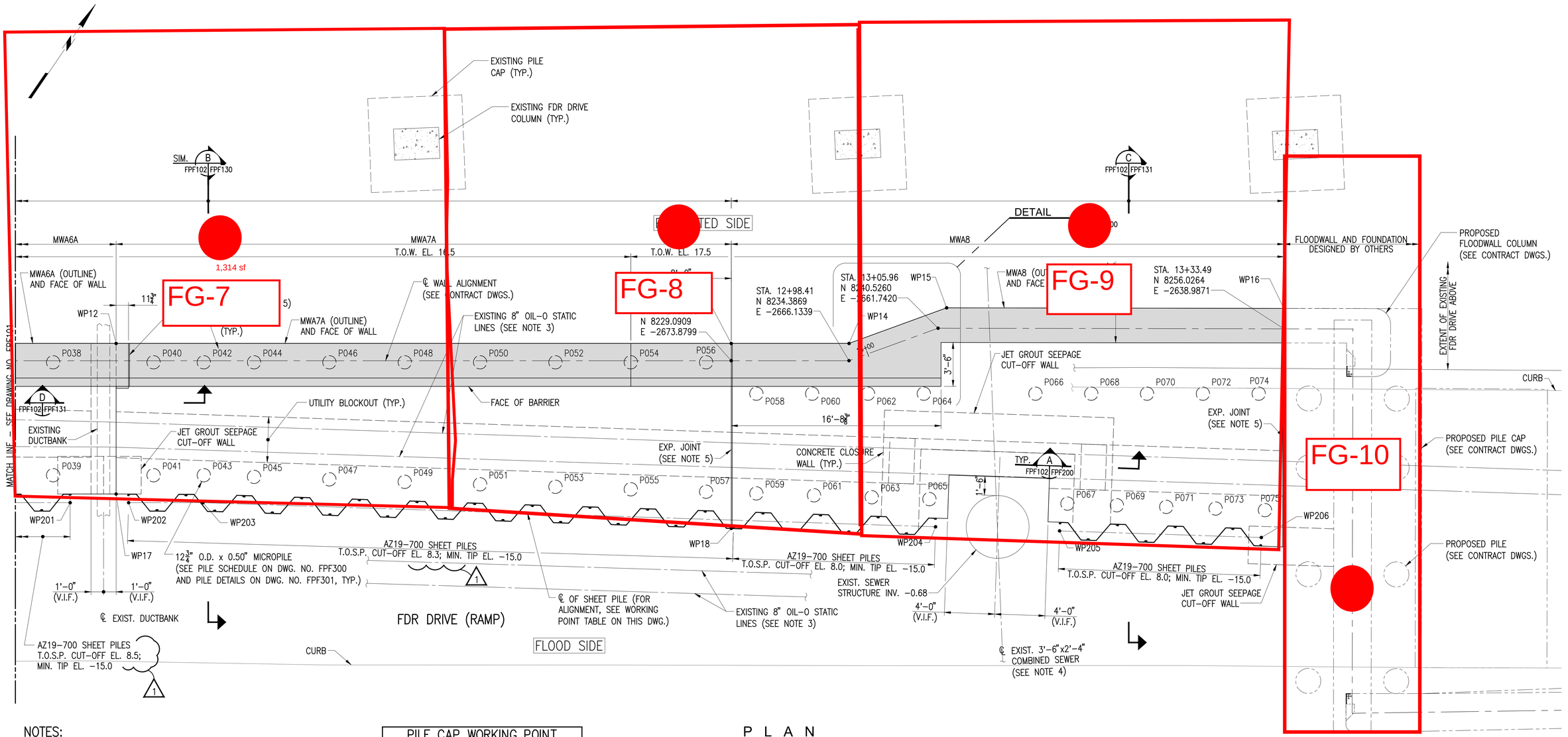

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4. PRIOR TO START OF WORK, SURVEYED LOCATIONS OF SEWER AND MANHOLE SHALL BE SUBMITTED FOR REVIEW.
5. FOR TYPICAL EXPANSION JOINT DETAILS, SEE DRAWING NO. FPF200.

LEGEND:

MWA – MONOLITH PILE CAP

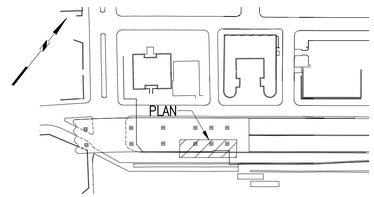
PILE CAP WORKING POINT COORDINATE TABLE

WORKING POINT DESIGNATION	NORTHING	EASTING
WP12	8202.5834	-2715.0863
WP13	8230.2285	-2674.6522
WP14	8235.5219	-2666.9100
WP15	8242.2511	-2662.0959
WP16	8257.3668	-2639.9059
WP17	8192.6834	-2708.3176
WP18	8218.0740	-2666.3421
WP201	8190.0472	-2710.9511
WP202	8192.6745	-2707.1085
WP203	8196.0153	-2702.2221
WP204	8227.3544	-2652.9825
WP205	8232.6611	-2644.6448
WP206	8241.2929	-2631.0826

PLAN

SCALE: 1/4"=1'-0"

4' 2' 0 4' 8'



KEY PLAN

STATE OF NEW YORK SIOBHAN Y. FANTA 080805 LICENSED PROFESSIONAL ENGINEER

REV.	DATE	BY	DESCRIPTION
1	01-18-23	A.C.	REVISED T.O.S.P. CUT-OFF ELEVATIONS

NYC DDC
EAST SIDE COASTAL RESILIENCY
NEW YORK NEW YORK

IPC RESILIENCY PARTNERS
WHITESTONE NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS
14 PENN PLAZA – 225 W. 34TH STREET, NY, NY 10122

SCALE	MADE BY: E.D. DATE: 10-25-2022	FILE NUMBER
AS NOTED	CH'KD BY: A.C. DATE: 10-25-2022	14378

ALTERNATE FOUNDATION
ENLARGED PLAN
SHEET 2 OF 2

DRAWING NUMBER
FPF102

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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 8/28/2023

Parameter	Compounds Detected	Unit	NYSDEC Part 375 Commercial Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives	DMSP-1	DMSP-2	DMSP-3	FG-4	FG-5	FG-6	FG-7	FG-8	FG-9	FG-10
PCBs	PCB-1254	ppm	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/Herbicides	4,4-DDD	ppm	92	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4,4-DDE	ppm	62	8.9	0.0096	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4,4-DDT	ppm	47	7.9	0.017	ND	ND	ND	ND	ND	ND	ND	ND	ND
	a-Chlordane	ppm	24	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chlordane	ppm	24	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	g-Chlordane	ppm	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TAL Metals	Aluminum	ppm	NS	NS	7090	8060	6970	2,610	6,890	5,760	6770	7630	7160	4830
	Antimony	ppm	NS	NS	ND	6.8	6.1	ND	ND	7.6	6.9	ND	ND	ND
	Arsenic	ppm	16	16	5.41	11.6	13.6	**16.9**	3.01	10	11.4	8.61	7.15	3.85
	Barium	ppm	400	400	141	163	101	29.2	70.1	255	**1580**	342	250	56.5
	Beryllium	ppm	590	72	.47	.57	.49	ND	.4	.36	.38	.42	.37	.35
	Cadmium	ppm	9.3	4.3	0.99	1.18	0.79	1.37	.91	1.05	2.1	2.46	.92	.72
	Calcium	ppm	NS	NS	11,700	56,700	66,500	4340	1770	25,100	47,900	42,200	26,200	22,800
	Chromium	ppm	1500	180	21.2	40.6	15.2	13.5	16.3	25.6	40.9	20.5	17.3	10.7
	Hexvalent Chromium	ppm	400	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trivalent Chromium	ppm	1500	180	21.2	40.6	15.2	13.5	16.3	ND	ND	ND	ND	ND
	Cobalt	ppm	NS	NS	9.39	7.58	6.18	5	6.94	25.6	40.9	20.5	17.3	10.7
	Copper	ppm	270	270	143	156	105	30.6	70.5	81.4	98.3	96.6	80.9	73.3
	Iron	ppm	NS	NS	18,200	19,800	17,300	34,600	13,200	20,400	26,500	27,500	17,800	14,200
	Lead	ppm	1000	400	289	**3640**	328	60.3	144	**835**	**3250**	**2330**	**522**	162
	Manganese	ppm	10,000	2000	317	334	280	154	319	329	335	347	203	219
	Magnesium	ppm	NS	NS	4360	26700	36,500	1200	2630	3140	4530	4060	2190	2950
	Mercury	ppm	2.8	0.81	0.49	**1.13**	**0.95**	.1	**1**	**1.02**	**6.9**	**.92**	.79	.22
	Nickel	ppm	310	310	30.8	21.5	16.3	18	21.6	21	24.6	28.4	14.9	12.8
	Silver	ppm	1500	180	ND	ND	ND	ND	1.32	ND	.55	1.28	ND	ND
	Sodium	ppm	NS	NS	757	1210	425	582	358	525	776	769	1200	1020
	Potassium	ppm	NS	NS	1400	1240	1690	348	1320	1300	1560	1530	1420	1210
	Vanadium	ppm	NS	NS	27.9	29.7	23.1	14.5	20.9	20.1	22.3	24.7	20.3	25
	Zinc	ppm	10,000	10,000	488	126	99.7	89.5	118	144	1100	940	154	58.1
Semi-Volatile Organic Compounds	1,1-Biphenyl	ppm	NS	NS	ND	ND	ND	ND	ND	ND	.84	9.2	ND	ND
	2-Methylnapthalene	ppm	NS	NS	.3	ND	ND	ND	ND	ND	2.7	23	.56	ND
	3&4-Methylphenol	ppm	NS	NS	ND	.63	.51	ND	ND	ND	.51	ND	ND	ND
	Acenapthene	ppm	500	100	.47	.37	ND	ND	ND	ND	4	41	1.6	ND
	Acenapthylene	ppm	500	100	.34	ND	ND	ND	ND	ND	1.8	20	.76	ND
	Anthracene	ppm	500	100	.85	.69	.47	ND	ND	ND	11	**140**	3.4	ND
	Benz(a)anthracene	ppm	5.6	1	**1.6**	**1.9**	**1.1**	ND	ND	.3	**26**	**220**	**15**	ND
	Benzo(a)pyrene	ppm	1	1	**1.6**	**2.0**	**1.2**	ND	ND	.34	**26**	**220**	**15**	**3.8**
	Benzo(b)fluoranthene	ppm	5.6	1	**1.7**	**2.3**	**1.5**	.27	ND	.42	**31**	**270**	**18**	**2.7**
	Benzo(ghi)perylene	ppm	500	100	.83	1.2	.56	ND	ND	ND	12	**110**	5.1	3.4
	Benzo(k)fluoranthene	ppm	56	3.9	.56	.72	.51	ND	ND	ND	**5.3**	**34**	3.7	.97
	Carbazole	ppm	NS	NS	ND	ND	ND	ND	ND	ND	5.2	45	1.6	ND
	Chrysene	ppm	56	3.9	1.6	1.9	1.1	ND	ND	ND	**23**	**180**	**12**	ND
	Dibenz(a,h)anthracene	ppm	0.56	.33	.23	.3	ND	ND	ND	ND	**3.1**	**36**	**1.7**	**.95**
	Dibenzofuran	ppm	NS	NS	ND	ND	ND	ND	ND	ND	4.0	52	1.0	ND
	Fluoranthene	ppm	500	100	3.3	4.5	2.1	.35	ND	.68	50	**640**	33	ND
	Fluorene	ppm	500	100	.54	.38	ND	ND	ND	ND	5.3	91	1.8	ND
	Indeno(1,2,3-cd)pyrene	ppm	5.6	0.5	**.87**	**1.3**	**.63**	ND	ND	ND	**14**	**120**	**6.2**	**3.8**
	Napthalene	ppm	500	100	.59	.45	ND	ND	ND	ND	6.1	31	1	ND
	Phenanthrene	ppm	500	100	2.7	2.6	1.8	ND	ND	.59	51	**600**	20	ND
	Phenol	ppm	500	100	ND	ND	ND	ND	ND	ND	.27	ND	ND	ND
	Pyrene	ppm	500	100	3.5	4.1	2.0	.34	ND	.62	41	**490**	27	ND
Cyanide	Cyanide	ppm	27	27	ND	ND	ND	ND	ND	1.19	1.8	1.03	5.73	ND
Volatile Organic Compounds	m&p-Xylenes	ppm	500	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.008
EPH	>C28-C40	ppm	NS	NS	ND	38	350	ND	ND	170	250	74	210	ND
	C9-C28	ppm	NS	NS	ND	79	930	ND	ND	520	810	200	300	ND
	Total EPH	ppm	NS	NS	ND	117	1280	ND	ND	690	1060	274	510	ND
TPH	DRO	ppm	NS	NS	ND	ND	ND	ND	ND	ND	5600	470	320	ND
	GRO	ppm	NS	NS	ND	ND	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

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

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 8/28/2023

Parameter	Compounds Detected	Unit	Regulatory Criteria	DMSP-1	DMSP-2	DMSP-3	FG-4	FG-5	FG-6	FG-7	FG-8	FG-9	FG-10
RCRA Characteristics	pH	pH units	<2 or >12.5	9.65	8.19	7.9	9.69	7.88	8.28	8.34	9.18	9.04	11.4
	Flashpoint	º F	>200º F	>200°F	>200°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	passed	passed
	Reactivity - Cyanide	ppm	_	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Reactivity - Sulfide	ppm	_	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOXICITY		**Unit**	**USEPA Toxicity Characteristic Regulatory Criteria**	**DMSP-1**	**DMSP-2**	**DMSP-3**	**FG-4**	**FG-5**	**FG-6**	**FG-7**	**FG-8**	**FG-9**	**FG-10**
TCLP Metals	Barium	mg/L	100	0.44	0.71	0.31	0.31	0.67	0.45	0.3	0.6	0.41	0.25
	Mercury	mg/L	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	mg/L	5	0.26	0.27	0.29	ND	ND	ND	**28.8**	0.37	ND	ND
TCLP VOCs	None Detected	_	_	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP SVOCs	None Detected	_	_	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Pests/Herbicides	None Detected	_	_	ND	ND	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.

APPENDIX A

TEST PIT LOGS

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-4
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete
2		0.0	Concrete
3		0.0	Dark brown sandy soil
4		0.0	Dark brown sandy soil
5		0.0	Dark brown sandy soil
6		0.0	Light brown sand
7		0.0	Light brown sand

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-5
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete, brick, rock, gravel, brown sandy loam
2		0.0	Concrete, brick, rock, gravel, brown sandy loam
3		0.0	Concrete, brick, rock, gravel, brown sandy loam
4		0.0	Concrete, brick, rock, gravel, brown sandy loam
5		0.0	Concrete, brick, rock, gravel, brown sandy loam
6		0.0	Concrete, brick, rock, gravel, brown sandy loam
7		0.0	Concrete, brick, rock, gravel, brown sandy loam

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-6
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete, brick, rock, gravel, brown sandy loam
2		0.0	Concrete, brick, rock, gravel, brown sandy loam
3		0.0	Concrete, brick, rock, gravel, brown sandy loam
4		0.0	Concrete, brick, rock, gravel, brown sandy loam
5		0.0	Concrete, brick, rock, gravel, brown sandy loam
6		0.0	Concrete, brick, rock, gravel, brown sandy loam
7		0.0	Concrete, brick, rock, gravel, brown sandy loam

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-7
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete, brick, rock, gravel, brown sandy loam
2		0.0	Concrete, brick, rock, gravel, brown sandy loam
3		0.0	Concrete, brick, rock, gravel, brown sandy loam
4		0.0	Concrete, brick, rock, gravel, brown sandy loam
5		0.0	Concrete, brick, rock, gravel, brown sandy loam
6		0.0	Concrete, brick, rock, gravel, brown sandy loam
7		0.0	Concrete, brick, rock, gravel, brown sandy loam

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-8
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete, brick, rock, gravel, brown sandy loam
2		0.0	Concrete, brick, rock, gravel, brown sandy loam
3		0.0	Concrete, brick, rock, gravel, brown sandy loam
4		0.0	Concrete, brick, rock, gravel, brown sandy loam
5		0.0	Concrete, brick, rock, gravel, brown sandy loam
6		0.0	Concrete, brick, rock, gravel, brown sandy loam
7		0.0	Concrete, brick, rock, gravel, brown sandy loam

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-9
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete, brick, rock, gravel, brown sandy loam
2		0.0	Concrete, brick, rock, gravel, brown sandy loam
3		0.0	Concrete, brick, rock, gravel, brown sandy loam
4		0.0	Concrete, brick, rock, gravel, brown sandy loam
5		0.0	Concrete, brick, rock, gravel, brown sandy loam
6		0.0	Concrete, brick, rock, gravel, brown sandy loam
7		0.0	Concrete, brick, rock, gravel, brown sandy loam

		Project:	NYCDDC SANDRESM1
		Test Pit ID:	FG-10
		Date:	8/28/2023
		Weather:	Sunny, 78 degrees F
		Notes:	
Site Name:	East Side Coastal Resiliency		
Site Location:	East River Park, Manhattan		
Test Pit Location:	FDR Drive & Montgomery Street		
Geologist:	Brian Pendergast	Excavation Co:	IPC Resiliency Partners
Operator Co:	IPC Resiliency Partners	GW Encountered:	N/A
Total Depth:	7 ftbg	Date Completed:	8/28/2023

Depth (ft.)	Sample ID and Depth	PID Reading	SOIL/GEOLOGIC DESCRIPTION
1		0.0	Concrete
2		0.0	Concrete
3		0.0	Dark brown sandy soil
4		0.0	Dark brown sandy soil
5		0.0	Dark brown sandy soil
6		0.0	Light brown sand
7		0.0	Light brown sand

APPENDIX B

LABORATORY ANALYSIS

PHOENIX
Environmental Laboratories, Inc.

Tuesday, September 19, 2023

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

Project ID: EAST SIDE COASTAL RESILIENCY
SDG ID: GCO85850
Sample ID#s: CO85850 - CO85859

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

September 19, 2023

SDG I.D.: GCO85850

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Sample Id Cross Reference

September 19, 2023

SDG I.D.: GCO85850

Project ID: EAST SIDE COASTAL RESILIENCY

Client Id	Lab Id	Matrix
DMSP-1	CO85850	SOIL
DMSP-2	CO85851	SOIL
DMSP-3	CO85852	SOIL
FG-4	CO85853	SOIL
FG-5	CO85854	SOIL
FG-6	CO85855	SOIL
FG-7	CO85856	SOIL
FG-8	CO85857	SOIL
FG-9	CO85858	SOIL
FG-10	CO85859	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

September 19, 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:		08/28/23	9:00
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85850

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	7090	55	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	5.41	0.73	mg/Kg	1	09/13/23	TH	SW6010D
Barium	141	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Beryllium	0.47	0.29	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	11700	5.5	mg/Kg	1	09/13/23	TH	SW6010D
Cadmium	0.99	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	9.39	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	21.2	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Copper	143	0.7	mg/kg	1	09/13/23	TH	SW6010D
Iron	18200	55	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	0.49	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1400	55	mg/Kg	10	09/13/23	TH	SW6010D
Magnesium	4360	5.5	mg/Kg	1	09/13/23	TH	SW6010D
Manganese	317	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	757	5.5	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	30.8	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Lead	289	3.6	mg/Kg	10	09/13/23	TH	SW6010D
Antimony	< 3.6	3.6	mg/Kg	1	09/13/23	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.44	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	0.26	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.3	3.3	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	21.2	0.36	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	27.9	0.36	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	488	7.3	mg/Kg	10	09/13/23	TH	SW6010D	
Percent Solid	88		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW/CL	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.43	0.43	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	9.65	1.00	pH Units	1	08/29/23 22:17	JW/CL	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	93.5		mV	1	08/29/23	JW/CL	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				08/31/23	H/F	SW3546	
Soil Extraction for Pesticides	Completed				08/31/23	H/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				08/31/23	P/P	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	44	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	ND	89	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	ND	44	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	46		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	60		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.0	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	83		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4-D	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	09/01/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A
Dichloroprop	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A
Dinoseb	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	65		%	10	09/01/23	KCA	30 - 150 %
% DCAA (Confirmation)	58		%	10	09/01/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1221	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1232	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1242	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1248	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1254	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1260	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1262	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
PCB-1268	ND	75	ug/Kg	2	09/01/23	SC	SW8082A
QA/QC Surrogates							
% DCBP	107		%	2	09/01/23	SC	30 - 150 %
% DCBP (Confirmation)	115		%	2	09/01/23	SC	30 - 150 %
% TCMX	109		%	2	09/01/23	SC	30 - 150 %
% TCMX (Confirmation)	104		%	2	09/01/23	SC	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	09/01/23	AW	SW8081B
4,4' -DDE	9.6	2.3	ug/Kg	2	09/01/23	AW	SW8081B
4,4' -DDT	17	2.3	ug/Kg	2	09/01/23	AW	SW8081B
a-BHC	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	09/01/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	09/01/23	AW	SW8081B
b-BHC	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	09/01/23	AW	SW8081B
d-BHC	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	09/01/23	AW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Endosulfan sulfate	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Endrin	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	09/01/23	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	09/01/23	AW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	09/01/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	09/01/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/01/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	139		%	2	09/01/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	125		%	2	09/01/23	AW	30 - 150 %	
% TCMX	137		%	2	09/01/23	AW	30 - 150 %	
% TCMX (Confirmation)	130		%	2	09/01/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	60		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	66		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	137		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	143		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	157		%	10	09/05/23	AW	30 - 150 %	3
%TCMX (Surrogate Rec) (Confirmation)	154		%	10	09/05/23	AW	30 - 150 %	3
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	280	mg/Kg	5	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	106		%	5	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	60		%	5	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
2-Hexanone	ND	26	ug/kg	1	08/29/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	26	ug/kg	1	08/29/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/29/23	JLI	SW8260D
Benzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Bromochloromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Bromodichloromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Bromoform	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Bromomethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Carbon Disulfide	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Carbon tetrachloride	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Chlorobenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Chloroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Chloroform	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Chloromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Cyclohexane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Dibromochloromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Ethylbenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Isopropylbenzene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
m&p-Xylene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Methyl ethyl ketone	ND	31	ug/kg	1	08/29/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	08/29/23	JLI	SW8260D
Methylacetate	ND	4.2	ug/kg	1	08/29/23	JLI	SW8260D
Methylcyclohexane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Methylene chloride	ND	26	ug/kg	1	08/29/23	JLI	SW8260D
o-Xylene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Styrene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Tetrachloroethene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Toluene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Total Xylenes	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Trichloroethene	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
Vinyl chloride	ND	5.2	ug/kg	1	08/29/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	08/29/23	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	88		%	1	08/29/23	JLI	70 - 130 %	
% Dibromofluoromethane	96		%	1	08/29/23	JLI	70 - 130 %	
% Toluene-d8	94		%	1	08/29/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	78	ug/kg	1	08/29/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
1,3-Dichloropropane	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
n-Butylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
n-Propylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
p-Isopropyltoluene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
sec-Butylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
tert-Butylbenzene	ND	5.2	ug/Kg	1	08/29/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	97		%	1	08/29/23	JLI	70 - 130 %	
% Bromofluorobenzene	88		%	1	08/29/23	JLI	70 - 130 %	
% Dibromofluoromethane	96		%	1	08/29/23	JLI	70 - 130 %	
% Toluene-d8	94		%	1	08/29/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	08/30/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	95		%	10	08/30/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	100		%	10	08/30/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/30/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dichlorophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrophenol	ND	600	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylnaphthalene	300	260	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitroaniline	ND	600	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	09/01/23	AW	SW8270D	1
3,3'-Dichlorobenzidine	ND	450	ug/Kg	1	09/01/23	AW	SW8270D	
3-Nitroaniline	ND	600	ug/Kg	1	09/01/23	AW	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	AW	SW8270D	
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloroaniline	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitroaniline	ND	600	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthene	470	260	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthylene	340	260	ug/Kg	1	09/01/23	AW	SW8270D	
Acetophenone	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Anthracene	850	260	ug/Kg	1	09/01/23	AW	SW8270D	
Atrazine	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benz(a)anthracene	1600	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzaldehyde	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(a)pyrene	1600	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(b)fluoranthene	1700	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(ghi)perylene	830	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(k)fluoranthene	560	260	ug/Kg	1	09/01/23	AW	SW8270D	
Benzyl butyl phthalate	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Caprolactam	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Carbazole	ND	370	ug/Kg	1	09/01/23	AW	SW8270D	
Chrysene	1600	260	ug/Kg	1	09/01/23	AW	SW8270D	
Dibenz(a,h)anthracene	230	190	ug/Kg	1	09/01/23	AW	SW8270D	
Dibenzofuran	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Diethyl phthalate	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Dimethylphthalate	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-butylphthalate	ND	750	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-octylphthalate	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Fluoranthene	3300	260	ug/Kg	1	09/01/23	AW	SW8270D	
Fluorene	540	260	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobenzene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobutadiene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D	

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

Phoenix I.D.: CO85850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	260	ug/Kg	1	09/01/23	AW	SW8270D
Indeno(1,2,3-cd)pyrene	870	260	ug/Kg	1	09/01/23	AW	SW8270D
Isophorone	ND	260	ug/Kg	1	09/01/23	AW	SW8270D
Naphthalene	590	260	ug/Kg	1	09/01/23	AW	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	09/01/23	AW	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	09/01/23	AW	SW8270D
Phenanthrene	2700	260	ug/Kg	1	09/01/23	AW	SW8270D
Phenol	ND	260	ug/Kg	1	09/01/23	AW	SW8270D
Pyrene	3500	260	ug/Kg	1	09/01/23	AW	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	09/01/23	AW	30 - 130 %
% 2-Fluorobiphenyl	74		%	1	09/01/23	AW	30 - 130 %
% 2-Fluorophenol	77		%	1	09/01/23	AW	30 - 130 %
% Nitrobenzene-d5	76		%	1	09/01/23	AW	30 - 130 %
% Phenol-d5	81		%	1	09/01/23	AW	30 - 130 %
% Terphenyl-d14	82		%	1	09/01/23	AW	30 - 130 %
TCLP Acid/Base-Neutral							
1,4-Dichlorobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	108		%	1	09/01/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	84		%	1	09/01/23	KCA	30 - 130 %
% 2-Fluorophenol	76		%	1	09/01/23	KCA	15 - 110 %
% Nitrobenzene-d5	83		%	1	09/01/23	KCA	30 - 130 %
% Phenol-d5	69		%	1	09/01/23	KCA	15 - 110 %
% Terphenyl-d14	99		%	1	09/01/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				09/01/23	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.

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
September 19, 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

September 19, 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:		08/28/23	9:15
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85851

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.45	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	8060	68	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	11.6	0.90	mg/Kg	1	09/13/23	TH	SW6010D
Barium	163	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Beryllium	0.57	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	56700	68	mg/Kg	10	09/13/23	TH	SW6010D
Cadmium	1.18	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	7.58	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	40.6	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Copper	156	0.9	mg/kg	1	09/13/23	TH	SW6010D
Iron	19800	68	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	1.13	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1240	68	mg/Kg	10	09/13/23	TH	SW6010D
Magnesium	26700	68	mg/Kg	10	09/13/23	TH	SW6010D
Manganese	334	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	1210	6.8	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	21.5	0.45	mg/Kg	1	09/13/23	TH	SW6010D
Lead	3640	42	mg/Kg	100	09/15/23	TH	SW6010D
Antimony	6.8	4.5	mg/Kg	1	09/13/23	th	SW6010D
Selenium	< 1.8	1.8	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.71	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	0.27	0.10	mg/L	1	09/15/23	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 4.1	4.1	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				09/15/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	40.6	0.45	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	29.7	0.45	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	126	0.9	mg/Kg	1	09/13/23	TH	SW6010D	
Percent Solid	73		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW/CL	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.50	0.50	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	8.19	1.00	pH Units	1	08/29/23 22:18	JW/CL	SW846 9045D	1
Reactivity Cyanide	< 7	7	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	181		mV	1	08/29/23	JW/CL	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.68	0.68	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	H/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				09/14/23	AL	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				08/31/23	P/P	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				09/14/23	Y/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	38	11	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	79	22	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	117	11	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	65		%	1	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	86		%	1	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	9.5	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	82		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	170	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	170	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4-D	ND	340	ug/Kg	10	09/01/23	KCA	SW8151A	

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

Phoenix I.D.: CO85851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	3400	ug/Kg	10	09/01/23	KCA	SW8151A
Dalapon	ND	170	ug/Kg	10	09/01/23	KCA	SW8151A
Dicamba	ND	170	ug/Kg	10	09/01/23	KCA	SW8151A
Dichloroprop	ND	340	ug/Kg	10	09/01/23	KCA	SW8151A
Dinoseb	ND	340	ug/Kg	10	09/01/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	79		%	10	09/01/23	KCA	30 - 150 %
% DCAA (Confirmation)	68		%	10	09/01/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	91	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	37		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	36		%	2	09/03/23	KCA	30 - 150 %
% TCMX	41		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	39		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.7	ug/Kg	2	09/05/23	CN	SW8081B
4,4' -DDE	ND	2.7	ug/Kg	2	09/05/23	CN	SW8081B
4,4' -DDT	ND	2.7	ug/Kg	2	09/05/23	CN	SW8081B
a-BHC	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
a-Chlordane	ND	4.6	ug/Kg	2	09/05/23	CN	SW8081B
Aldrin	ND	4.6	ug/Kg	2	09/05/23	CN	SW8081B
b-BHC	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Chlordane	ND	46	ug/Kg	2	09/05/23	CN	SW8081B
d-BHC	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Dieldrin	ND	4.6	ug/Kg	2	09/05/23	CN	SW8081B
Endosulfan I	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Endosulfan II	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Endosulfan sulfate	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Endrin	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Endrin aldehyde	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Endrin ketone	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
g-BHC	ND	1.8	ug/Kg	2	09/05/23	CN	SW8081B
g-Chlordane	ND	4.6	ug/Kg	2	09/05/23	CN	SW8081B
Heptachlor	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Heptachlor epoxide	ND	9.1	ug/Kg	2	09/05/23	CN	SW8081B
Methoxychlor	ND	46	ug/Kg	2	09/05/23	CN	SW8081B
Toxaphene	ND	180	ug/Kg	2	09/05/23	CN	SW8081B
QA/QC Surrogates							
% DCBP	42		%	2	09/05/23	CN	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	31		%	2	09/05/23	CN	30 - 150 %	
% TCMX	38		%	2	09/05/23	CN	30 - 150 %	
% TCMX (Confirmation)	34		%	2	09/05/23	CN	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	59		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	64		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	75		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	79		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	84		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	87		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	340	mg/Kg	5	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Interference		%	5	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	90		%	5	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D	

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

Phoenix I.D.: CO85851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	37	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	37	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	44	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	15	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	37	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	7.3	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	08/30/23	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	88		%	1	08/30/23	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	08/30/23	JLI	70 - 130 %
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	100	ug/kg	1	08/30/23	JLI	SW8260D
Volatiles							
1,2,3-Trichloropropane	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
1,3-Dichloropropane	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
n-Butylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
n-Propylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
p-Isopropyltoluene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
sec-Butylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
tert-Butylbenzene	ND	7.3	ug/Kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	08/30/23	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	08/30/23	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	08/30/23	JLI	70 - 130 %
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Benzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Chloroform	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	08/30/23	HM	70 - 130 %
% Bromofluorobenzene (10x)	96		%	10	08/30/23	HM	70 - 130 %
% Dibromofluoromethane (10x)	96		%	10	08/30/23	HM	70 - 130 %
% Toluene-d8 (10x)	95		%	10	08/30/23	HM	70 - 130 %
Volatile Library Search	Completed				08/30/23	JLI	
Semivolatiles							
1,1-Biphenyl	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
2,2'-Oxybis(1-Chloropropane)	ND	310	ug/Kg	1	09/01/23	AW	SW8270D [1]
2,3,4,6-tetrachlorophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
2,4,5-Trichlorophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
2,4,6-Trichlorophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
2,4-Dichlorophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D

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

Phoenix I.D.: CO85851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrophenol	ND	720	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrotoluene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2,6-Dinitrotoluene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chloronaphthalene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chlorophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylnaphthalene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylphenol (o-cresol)	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitroaniline	ND	720	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitrophenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
3&4-Methylphenol (m&p-cresol)	630	450	ug/Kg	1	09/01/23	AW	SW8270D	1
3,3'-Dichlorobenzidine	ND	540	ug/Kg	1	09/01/23	AW	SW8270D	
3-Nitroaniline	ND	720	ug/Kg	1	09/01/23	AW	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1300	ug/Kg	1	09/01/23	AW	SW8270D	
4-Bromophenyl phenyl ether	ND	450	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloro-3-methylphenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloroaniline	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chlorophenyl phenyl ether	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitroaniline	ND	720	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitrophenol	ND	1300	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthene	370	310	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthylene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Acetophenone	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Anthracene	690	310	ug/Kg	1	09/01/23	AW	SW8270D	
Atrazine	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benz(a)anthracene	1900	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzaldehyde	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(a)pyrene	2000	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(b)fluoranthene	2300	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(ghi)perylene	1200	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(k)fluoranthene	720	310	ug/Kg	1	09/01/23	AW	SW8270D	
Benzyl butyl phthalate	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethoxy)methane	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethyl)ether	ND	450	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Caprolactam	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Carbazole	ND	450	ug/Kg	1	09/01/23	AW	SW8270D	
Chrysene	1900	310	ug/Kg	1	09/01/23	AW	SW8270D	
Dibenz(a,h)anthracene	300	220	ug/Kg	1	09/01/23	AW	SW8270D	
Dibenzofuran	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Diethyl phthalate	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Dimethylphthalate	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-butylphthalate	ND	900	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-octylphthalate	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Fluoranthene	4500	310	ug/Kg	1	09/01/23	AW	SW8270D	
Fluorene	380	310	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobenzene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobutadiene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorocyclopentadiene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
Indeno(1,2,3-cd)pyrene	1300	310	ug/Kg	1	09/01/23	AW	SW8270D
Isophorone	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
Naphthalene	450	310	ug/Kg	1	09/01/23	AW	SW8270D
Nitrobenzene	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodimethylamine	ND	450	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodi-n-propylamine	ND	220	ug/Kg	1	09/01/23	AW	SW8270D
N-Nitrosodiphenylamine	ND	450	ug/Kg	1	09/01/23	AW	SW8270D
Pentachlorophenol	ND	450	ug/Kg	1	09/01/23	AW	SW8270D
Phenanthrene	2600	310	ug/Kg	1	09/01/23	AW	SW8270D
Phenol	ND	310	ug/Kg	1	09/01/23	AW	SW8270D
Pyrene	4100	310	ug/Kg	1	09/01/23	AW	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	85		%	1	09/01/23	AW	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	09/01/23	AW	30 - 130 %
% 2-Fluorophenol	79		%	1	09/01/23	AW	30 - 130 %
% Nitrobenzene-d5	77		%	1	09/01/23	AW	30 - 130 %
% Phenol-d5	81		%	1	09/01/23	AW	30 - 130 %
% Terphenyl-d14	85		%	1	09/01/23	AW	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	09/01/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	109		%	1	09/01/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	86		%	1	09/01/23	KCA	30 - 130 %
% 2-Fluorophenol	78		%	1	09/01/23	KCA	15 - 110 %
% Nitrobenzene-d5	86		%	1	09/01/23	KCA	30 - 130 %
% Phenol-d5	70		%	1	09/01/23	KCA	15 - 110 %
% Terphenyl-d14	98		%	1	09/01/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				09/01/23	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
September 19, 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

September 19, 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:		08/28/23	9:30
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85852

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	09/13/23	th	SW6010D
Aluminum	6970	59	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	13.4	0.79	mg/Kg	1	09/13/23	th	SW6010D
Barium	101	0.39	mg/Kg	1	09/13/23	th	SW6010D
Beryllium	0.49	0.31	mg/Kg	1	09/13/23	th	SW6010D
Calcium	66500	59	mg/Kg	10	09/13/23	TH	SW6010D
Cadmium	0.79	0.39	mg/Kg	1	09/13/23	th	SW6010D
Cobalt	6.18	0.39	mg/Kg	1	09/13/23	th	SW6010D
Chromium	15.2	0.39	mg/Kg	1	09/13/23	th	SW6010D
Copper	105	0.8	mg/kg	1	09/13/23	th	SW6010D
Iron	17300	59	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	0.95	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1690	59	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	36500	59	mg/Kg	10	09/13/23	th	SW6010D
Manganese	280	3.9	mg/Kg	10	09/13/23	TH	SW6010D
Sodium	425	5.9	mg/Kg	1	09/13/23	th	SW6010D
Nickel	16.3	0.39	mg/Kg	1	09/13/23	th	SW6010D
Lead	328	3.9	mg/Kg	10	09/13/23	th	SW6010D
Antimony	6.1	3.9	mg/Kg	1	09/13/23	th	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	09/13/23	th	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.31	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	0.29	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85852

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.5	3.5	mg/Kg	1	09/13/23	th	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	15.2	0.39	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	23.1	0.39	mg/Kg	1	09/13/23	th	SW6010D	
Zinc	99.7	0.8	mg/Kg	1	09/13/23	th	SW6010D	
Percent Solid	86		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW/CL	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.42	0.42	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	7.90	1.00	pH Units	1	08/29/23 22:18	JW/CL	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	-197		mV	1	08/29/23	JW/CL	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.58	0.58	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	350	45	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	930	90	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	1280	45	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Interference		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	Interference		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.9	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	82		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4-D	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	09/01/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/01/23	KCA	SW8151A
Dichloroprop	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A
Dinoseb	ND	280	ug/Kg	10	09/01/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	73		%	10	09/01/23	KCA	30 - 150 %
% DCAA (Confirmation)	69		%	10	09/01/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	75	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	59		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	66		%	2	09/03/23	KCA	30 - 150 %
% TCMX	54		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	61		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	77		%	2	09/05/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	103		%	2	09/05/23	AW	30 - 150 %	
% TCMX	55		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	96		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	59		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	66		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	53		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	42		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	80		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	79		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	290	mg/Kg	5	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	113		%	5	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	65		%	5	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D	

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Client ID: DMSP-3

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	25	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	25	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	4.0	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	25	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	5.0	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	08/30/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	86		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	75	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	5.0	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	104		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	86		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	100	ug/L	10	08/30/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	98		%	10	08/30/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	95		%	10	08/30/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	96		%	10	08/30/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/30/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/31/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	510	390	ug/Kg	1	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthylene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Anthracene	470	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benz(a)anthracene	1100	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	1200	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	1500	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	560	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	510	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Carbazole	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Chrysene	1100	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenzofuran	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluoranthene	2100	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluorene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

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

Phoenix I.D.: CO85852

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	630	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Isophorone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Naphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenanthrene	1800	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Pyrene	2000	270	ug/Kg	1	09/01/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	100		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl	78		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol	73		%	1	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5	82		%	1	09/01/23	KCA	30 - 130 %	
% Phenol-d5	80		%	1	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14	70		%	1	09/01/23	KCA	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	122		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	63		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	58		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	75		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	53		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	93		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

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
September 19, 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

September 19, 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:		08/28/23	11:00
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85853

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.31	0.31	mg/Kg	1	09/13/23	th	SW6010D
Aluminum	2610	46	mg/Kg	10	09/13/23	th	SW6010D
Arsenic	16.9	0.61	mg/Kg	1	09/13/23	th	SW6010D
Barium	29.2	0.31	mg/Kg	1	09/13/23	th	SW6010D
Beryllium	< 0.25	0.25	mg/Kg	1	09/13/23	th	SW6010D
Calcium	4340	4.6	mg/Kg	1	09/13/23	th	SW6010D
Cadmium	1.37	0.31	mg/Kg	1	09/13/23	th	SW6010D
Cobalt	5.00	0.31	mg/Kg	1	09/13/23	th	SW6010D
Chromium	13.5	0.31	mg/Kg	1	09/13/23	th	SW6010D
Copper	30.6	0.6	mg/kg	1	09/13/23	th	SW6010D
Iron	34600	46	mg/Kg	10	09/13/23	th	SW6010D
Mercury	0.10	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	348	4.6	mg/Kg	1	09/13/23	th	SW6010D
Magnesium	1200	4.6	mg/Kg	1	09/13/23	th	SW6010D
Manganese	154	0.31	mg/Kg	1	09/13/23	th	SW6010D
Sodium	582	4.6	mg/Kg	1	09/13/23	th	SW6010D
Nickel	18.0	0.31	mg/Kg	1	09/13/23	th	SW6010D
Lead	60.3	0.31	mg/Kg	1	09/13/23	th	SW6010D
Antimony	< 3.1	3.1	mg/Kg	1	09/13/23	th	SW6010D
Selenium	< 1.2	1.2	mg/Kg	1	09/13/23	th	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.31	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 2.8	2.8	mg/Kg	1	09/13/23	th	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	13.5	0.31	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	14.5	0.31	mg/Kg	1	09/13/23	th	SW6010D	
Zinc	89.5	0.6	mg/Kg	1	09/13/23	th	SW6010D	
Percent Solid	96		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW/CL	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.39	0.39	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	9.69	1.00	pH Units	1	08/29/23 22:18	JW/CL	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	149		mV	1	08/29/23	JW/CL	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.52	0.52	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	8.1	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	ND	16	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	ND	8.1	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	54		%	1	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	68		%	1	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	5.3	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	81		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	130	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	130	ug/Kg	10	09/01/23	KCA	SW8151A	
2,4-D	ND	260	ug/Kg	10	09/01/23	KCA	SW8151A	

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

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2600	ug/Kg	10	09/01/23	KCA	SW8151A
Dalapon	ND	130	ug/Kg	10	09/01/23	KCA	SW8151A
Dicamba	ND	130	ug/Kg	10	09/01/23	KCA	SW8151A
Dichloroprop	ND	260	ug/Kg	10	09/01/23	KCA	SW8151A
Dinoseb	ND	260	ug/Kg	10	09/01/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	80		%	10	09/01/23	KCA	30 - 150 %
% DCAA (Confirmation)	78		%	10	09/01/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	67	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	58		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	57		%	2	09/03/23	KCA	30 - 150 %
% TCMX	55		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	54		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.0	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.0	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.0	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.4	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.4	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	34	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.4	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.3	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.4	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	6.7	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	34	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	130	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	76		%	2	09/05/23	AW	30 - 150 %

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

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	83		%	2	09/05/23	AW	30 - 150 %	
% TCMX	57		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	73		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	61		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	63		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	71		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	56		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	85		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	80		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	51	mg/Kg	1	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	72		%	1	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	78		%	1	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D	

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

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	22	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	22	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	45	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	27	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	9.0	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	3.6	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	22	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	4.5	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %

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

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	100		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	67	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	4.5	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	100		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/30/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	100		%	10	08/30/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	94		%	10	08/30/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	98		%	10	08/30/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/30/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	

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Client ID: FG-4

Phoenix I.D.: CO85853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	560	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	560	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	420	ug/Kg	1	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	560	ug/Kg	1	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	560	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	1000	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthylene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Acetophenone	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Anthracene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Atrazine	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benz(a)anthracene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	270	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Caprolactam	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Carbazole	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D	
Chrysene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	170	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenzofuran	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	690	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluoranthene	350	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluorene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachloroethane	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Isophorone	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Naphthalene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D
N-Nitrosodi-n-propylamine	ND	170	ug/Kg	1	09/01/23	KCA	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	09/01/23	KCA	SW8270D
Phenanthrene	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Phenol	ND	240	ug/Kg	1	09/01/23	KCA	SW8270D
Pyrene	340	240	ug/Kg	1	09/01/23	KCA	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	101		%	1	09/01/23	KCA	30 - 130 %
% 2-Fluorobiphenyl	76		%	1	09/01/23	KCA	30 - 130 %
% 2-Fluorophenol	71		%	1	09/01/23	KCA	30 - 130 %
% Nitrobenzene-d5	81		%	1	09/01/23	KCA	30 - 130 %
% Phenol-d5	79		%	1	09/01/23	KCA	30 - 130 %
% Terphenyl-d14	70		%	1	09/01/23	KCA	30 - 130 %

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	102		%	1	09/06/23	KCA	15 - 110 %
% 2-Fluorobiphenyl	57		%	1	09/06/23	KCA	30 - 130 %
% 2-Fluorophenol	50		%	1	09/06/23	KCA	15 - 110 %
% Nitrobenzene-d5	71		%	1	09/06/23	KCA	30 - 130 %
% Phenol-d5	50		%	1	09/06/23	KCA	15 - 110 %
% Terphenyl-d14	86		%	1	09/06/23	KCA	30 - 130 %
Semivolatile Library Search	Completed				09/01/23	AW	

Project ID: EAST SIDE COASTAL RESILIENCY
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Phoenix I.D.: CO85853

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
September 19, 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

September 19, 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:		08/28/23	10:45
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85854

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	1.32	0.35	mg/Kg	1	09/13/23	th	SW6010D
Aluminum	6890	53	mg/Kg	10	09/13/23	th	SW6010D
Arsenic	3.01	0.70	mg/Kg	1	09/13/23	th	SW6010D
Barium	70.1	0.35	mg/Kg	1	09/13/23	th	SW6010D
Beryllium	0.40	0.28	mg/Kg	1	09/13/23	th	SW6010D
Calcium	1770	5.3	mg/Kg	1	09/13/23	th	SW6010D
Cadmium	0.91	0.35	mg/Kg	1	09/13/23	th	SW6010D
Cobalt	6.94	0.35	mg/Kg	1	09/13/23	th	SW6010D
Chromium	16.3	0.35	mg/Kg	1	09/13/23	th	SW6010D
Copper	70.5	0.7	mg/kg	1	09/13/23	th	SW6010D
Iron	13200	53	mg/Kg	10	09/13/23	th	SW6010D
Mercury	1.00	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1320	53	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	2630	5.3	mg/Kg	1	09/13/23	th	SW6010D
Manganese	319	0.35	mg/Kg	1	09/13/23	th	SW6010D
Sodium	358	5.3	mg/Kg	1	09/13/23	th	SW6010D
Nickel	21.6	0.35	mg/Kg	1	09/13/23	th	SW6010D
Lead	144	3.5	mg/Kg	10	09/13/23	th	SW6010D
Antimony	< 3.5	3.5	mg/Kg	1	09/13/23	th	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	09/13/23	th	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.67	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.2	3.2	mg/Kg	1	09/13/23	th	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	16.3	0.35	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	20.9	0.35	mg/Kg	1	09/13/23	th	SW6010D	
Zinc	118	0.7	mg/Kg	1	09/13/23	th	SW6010D	
Percent Solid	86		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW/CL	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.42	0.42	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	7.88	1.00	pH Units	1	08/29/23 22:18	JW/CL	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	233		mV	1	08/29/23	JW/CL	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.58	0.58	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	9.0	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	ND	18	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	ND	9.0	mg/kg	1	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	63		%	1	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	69		%	1	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.5	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	78		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	77		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	73		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	62		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	72		%	2	09/03/23	KCA	30 - 150 %
% TCMX	55		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	62		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	71		%	2	09/05/23	AW	30 - 150 %

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% DCBP (Confirmation)	54		%	2	09/05/23	AW	30 - 150 %	
% TCMX	66		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	61		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	62		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	65		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	89		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	83		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	86		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	81		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	57	mg/Kg	1	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	88		%	1	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	97		%	1	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	24	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	24	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	48	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	29	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	9.7	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	3.9	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	24	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	91		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	97		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	72	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	4.8	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	91		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	97		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	97		%	10	08/31/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	96		%	10	08/31/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	97		%	10	08/31/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/31/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

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2,4-Dimethylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthylene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Anthracene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benz(a)anthracene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Carbazole	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Chrysene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenzofuran	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluoranthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluorene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Isophorone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Naphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenanthrene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Pyrene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	105		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl	78		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol	71		%	1	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5	83		%	1	09/01/23	KCA	30 - 130 %	
% Phenol-d5	82		%	1	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14	70		%	1	09/01/23	KCA	30 - 130 %	

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	117		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	66		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	54		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	76		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	54		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	95		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

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
September 19, 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

September 19, 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:		08/28/23	10:30
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85855

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	09/13/23	th	SW6010D
Aluminum	5760	58	mg/Kg	10	09/13/23	th	SW6010D
Arsenic	10.0	0.77	mg/Kg	1	09/13/23	th	SW6010D
Barium	255	0.39	mg/Kg	1	09/13/23	th	SW6010D
Beryllium	0.36	0.31	mg/Kg	1	09/13/23	th	SW6010D
Calcium	25100	58	mg/Kg	10	09/13/23	th	SW6010D
Cadmium	1.05	0.39	mg/Kg	1	09/13/23	th	SW6010D
Cobalt	6.42	0.39	mg/Kg	1	09/13/23	th	SW6010D
Chromium	25.6	0.39	mg/Kg	1	09/13/23	th	SW6010D
Copper	81.4	0.8	mg/kg	1	09/13/23	th	SW6010D
Iron	20400	58	mg/Kg	10	09/13/23	th	SW6010D
Mercury	1.02	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1300	58	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	3140	5.8	mg/Kg	1	09/13/23	th	SW6010D
Manganese	329	0.39	mg/Kg	1	09/13/23	th	SW6010D
Sodium	525	5.8	mg/Kg	1	09/13/23	th	SW6010D
Nickel	21.0	0.39	mg/Kg	1	09/13/23	th	SW6010D
Lead	835	3.9	mg/Kg	10	09/13/23	th	SW6010D
Antimony	7.6	3.9	mg/Kg	1	09/13/23	th	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	09/13/23	th	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.45	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.5	3.5	mg/Kg	1	09/13/23	th	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	25.6	0.39	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	20.1	0.39	mg/Kg	1	09/13/23	th	SW6010D	
Zinc	144	0.8	mg/Kg	1	09/13/23	th	SW6010D	
Percent Solid	85		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.45	0.45	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	8.28	1.00	pH Units	1	08/29/23 22:18	JW	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	229		mV	1	08/29/23	JW	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.19	0.59	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	170	47	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	520	93	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	690	47	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	60		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	Interference		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.7	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	78		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	150	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	150	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A	

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	150	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	150	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	67		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	64		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	68		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	75		%	2	09/03/23	KCA	30 - 150 %
% TCMX	62		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	68		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.9	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.9	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	39	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.9	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	87		%	2	09/05/23	AW	30 - 150 %

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	78		%	2	09/05/23	AW	30 - 150 %	
% TCMX	73		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	70		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	63		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	68		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	102		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	94		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	89		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	85		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	58	mg/Kg	1	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	65		%	1	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	64		%	1	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	29	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	29	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	35	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	4.7	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	29	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %
1,4-dioxane							
1,4-dioxane	ND	88	ug/kg	1	08/30/23	JLI	SW8260D
Volatiles							
1,2,3-Trichloropropane	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
1,3-Dichloropropane	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
n-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
n-Propylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
p-Isopropyltoluene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
sec-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
tert-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	08/31/23	HM	70 - 130 %
% Bromofluorobenzene (10x)	93		%	10	08/31/23	HM	70 - 130 %
% Dibromofluoromethane (10x)	99		%	10	08/31/23	HM	70 - 130 %
% Toluene-d8 (10x)	93		%	10	08/31/23	HM	70 - 130 %
Volatile Library Search	Completed				08/30/23	JLI	
Semivolatiles							
1,1-Biphenyl	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D 1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthylene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Anthracene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benz(a)anthracene	300	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	340	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	420	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Carbazole	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Chrysene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenzofuran	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluoranthene	680	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluorene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

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

Phoenix I.D.: CO85855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Isophorone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Naphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	390	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenanthrene	590	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Pyrene	620	270	ug/Kg	1	09/01/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	107		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl	78		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol	71		%	1	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5	83		%	1	09/01/23	KCA	30 - 130 %	
% Phenol-d5	79		%	1	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14	70		%	1	09/01/23	KCA	30 - 130 %	

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	118		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	69		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	59		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	81		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	56		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	96		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

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
September 19, 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

September 19, 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:		08/28/23	10:00
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85856

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

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	0.55	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	6770	52	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	11.4	0.69	mg/Kg	1	09/13/23	TH	SW6010D
Barium	1580	3.5	mg/Kg	10	09/13/23	TH	SW6010D
Beryllium	0.38	0.28	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	47900	52	mg/Kg	10	09/13/23	TH	SW6010D
Cadmium	2.10	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	6.71	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	40.9	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Copper	98.3	0.7	mg/kg	1	09/13/23	TH	SW6010D
Iron	26500	52	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	6.90	0.31	mg/Kg	20	08/31/23	PM	SW7471B
Potassium	1560	52	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	4530	5.2	mg/Kg	1	09/13/23	TH	SW6010D
Manganese	335	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	776	5.2	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	24.6	0.35	mg/Kg	1	09/13/23	TH	SW6010D
Lead	3250	35	mg/Kg	100	09/13/23	th	SW6010D
Antimony	6.9	3.5	mg/Kg	1	09/13/23	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.30	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	28.8	1.0	mg/L	10	09/11/23	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

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

Phoenix I.D.: CO85856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.1	3.1	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	40.9	0.35	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	22.3	0.35	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	1100	6.9	mg/Kg	10	09/13/23	TH	SW6010D	
Percent Solid	86		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.46	0.46	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	8.34	1.00	pH Units	1	08/29/23 22:18	JW	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	224		mV	1	08/29/23	JW	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.80	0.58	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	250	46	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	810	91	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	1060	46	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Interference		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	Interference		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.9	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	76		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A	

Ver 1

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

Phoenix I.D.: CO85856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	75		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	65		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	76	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	72		%	2	09/03/23	KCA	30 - 150 %
% TCMX	65		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	64		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
4,4' -DDE	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
4,4' -DDT	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
a-BHC	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
a-Chlordane	ND	38	ug/Kg	20	09/05/23	AW	SW8081B
Aldrin	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
b-BHC	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
Chlordane	ND	380	ug/Kg	20	09/05/23	AW	SW8081B
d-BHC	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
Dieldrin	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
Endosulfan I	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
Endosulfan II	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
Endrin	ND	38	ug/Kg	20	09/05/23	AW	SW8081B
Endrin aldehyde	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
Endrin ketone	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
g-BHC	ND	15	ug/Kg	20	09/05/23	AW	SW8081B
g-Chlordane	ND	38	ug/Kg	20	09/05/23	AW	SW8081B
Heptachlor	ND	38	ug/Kg	20	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	76	ug/Kg	20	09/05/23	AW	SW8081B
Methoxychlor	ND	380	ug/Kg	20	09/05/23	AW	SW8081B
Toxaphene	ND	1500	ug/Kg	20	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	65		%	20	09/05/23	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	84		%	20	09/05/23	AW	30 - 150 %	
% TCMX	69		%	20	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	74		%	20	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	64		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	67		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	95		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	98		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	87		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	90		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	5600	570	mg/Kg	10	08/31/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	10	08/31/23	KCA	50 - 150 %	
% Terphenyl (surr)	Diluted Out		%	10	08/31/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D	

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

Phoenix I.D.: CO85856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
2-Hexanone	ND	26	ug/kg	1	09/01/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	26	ug/kg	1	09/01/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	09/01/23	JLI	SW8260D
Benzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Bromochloromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Bromodichloromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Bromoform	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Bromomethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Carbon Disulfide	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Carbon tetrachloride	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Chlorobenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Chloroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Chloroform	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Chloromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Cyclohexane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Dibromochloromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Ethylbenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Isopropylbenzene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
m&p-Xylene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Methyl ethyl ketone	ND	31	ug/kg	1	09/01/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	10	ug/kg	1	09/01/23	JLI	SW8260D
Methylacetate	ND	4.2	ug/kg	1	09/01/23	JLI	SW8260D
Methylcyclohexane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Methylene chloride	ND	26	ug/kg	1	09/01/23	JLI	SW8260D
o-Xylene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Styrene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Tetrachloroethene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Toluene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Total Xylenes	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Trichloroethene	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
Vinyl chloride	ND	5.2	ug/kg	1	09/01/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	09/01/23	JLI	70 - 130 %

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

Phoenix I.D.: CO85856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	95		%	1	09/01/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	09/01/23	JLI	70 - 130 %	
% Toluene-d8	91		%	1	09/01/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	78	ug/kg	1	09/01/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
1,3-Dichloropropane	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
n-Butylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
n-Propylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
p-Isopropyltoluene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
sec-Butylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
tert-Butylbenzene	ND	5.2	ug/Kg	1	09/01/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	95		%	1	09/01/23	JLI	70 - 130 %	
% Bromofluorobenzene	95		%	1	09/01/23	JLI	70 - 130 %	
% Dibromofluoromethane	101		%	1	09/01/23	JLI	70 - 130 %	
% Toluene-d8	91		%	1	09/01/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	98		%	10	08/31/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	96		%	10	08/31/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	98		%	10	08/31/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/31/23	HM	70 - 130 %	
Volatile Library Search	Completed				09/01/23	JLI		
Semivolatiles								
1,1-Biphenyl	840	270	ug/Kg	1	09/01/23	AW	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	

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

Phoenix I.D.: CO85856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrophenol	ND	610	ug/Kg	1	09/01/23	AW	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylnaphthalene	2700	270	ug/Kg	1	09/01/23	AW	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitroaniline	ND	610	ug/Kg	1	09/01/23	AW	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
3&4-Methylphenol (m&p-cresol)	510	380	ug/Kg	1	09/01/23	AW	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	09/01/23	AW	SW8270D	
3-Nitroaniline	ND	610	ug/Kg	1	09/01/23	AW	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	AW	SW8270D	
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitroaniline	ND	610	ug/Kg	1	09/01/23	AW	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthene	4000	270	ug/Kg	1	09/01/23	AW	SW8270D	
Acenaphthylene	1800	270	ug/Kg	1	09/01/23	AW	SW8270D	
Acetophenone	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Anthracene	11000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Atrazine	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Benz(a)anthracene	26000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Benzo(a)pyrene	26000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Benzo(b)fluoranthene	31000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Benzo(ghi)perylene	12000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Benzo(k)fluoranthene	5300	270	ug/Kg	1	09/01/23	AW	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	09/01/23	AW	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Caprolactam	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Carbazole	5200	380	ug/Kg	1	09/01/23	AW	SW8270D	
Chrysene	23000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Dibenz(a,h)anthracene	3100	190	ug/Kg	1	09/01/23	AW	SW8270D	
Dibenzofuran	4000	270	ug/Kg	1	09/01/23	AW	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-butylphthalate	ND	760	ug/Kg	1	09/01/23	AW	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Fluoranthene	50000	5300	ug/Kg	20	09/07/23	AW	SW8270D	
Fluorene	5300	270	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Indeno(1,2,3-cd)pyrene	14000	1300	ug/Kg	5	09/01/23	AW	SW8270D	
Isophorone	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
Naphthalene	6100	270	ug/Kg	1	09/01/23	AW	SW8270D	
Nitrobenzene	ND	270	ug/Kg	1	09/01/23	AW	SW8270D	
N-Nitrosodimethylamine	ND	380	ug/Kg	1	09/01/23	AW	SW8270D	
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	AW	SW8270D	
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	09/01/23	AW	SW8270D	
Pentachlorophenol	ND	380	ug/Kg	1	09/01/23	AW	SW8270D	
Phenanthrene	51000	5300	ug/Kg	20	09/07/23	AW	SW8270D	
Phenol	270	270	ug/Kg	1	09/01/23	AW	SW8270D	
Pyrene	41000	5300	ug/Kg	20	09/07/23	AW	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	97		%	1	09/01/23	AW	30 - 130 %	
% 2-Fluorobiphenyl	80		%	1	09/01/23	AW	30 - 130 %	
% 2-Fluorophenol	75		%	1	09/01/23	AW	30 - 130 %	
% Nitrobenzene-d5	85		%	1	09/01/23	AW	30 - 130 %	
% Phenol-d5	84		%	1	09/01/23	AW	30 - 130 %	
% Terphenyl-d14	70		%	1	09/01/23	AW	30 - 130 %	
% 2-Fluorobiphenyl (5x)	75		%	5	09/01/23	AW	30 - 130 %	
% Nitrobenzene-d5 (5x)	88		%	5	09/01/23	AW	30 - 130 %	
% Terphenyl-d14 (5x)	79		%	5	09/01/23	AW	30 - 130 %	
% 2-Fluorobiphenyl (20x)	89		%	20	09/07/23	AW	30 - 130 %	
% Nitrobenzene-d5 (20x)	85		%	20	09/07/23	AW	30 - 130 %	
% Terphenyl-d14 (20x)	78		%	20	09/07/23	AW	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	124		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	80		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	58		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	88		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	54		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	93		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

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

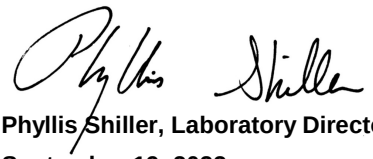
Hexavalent Chromium:
This sample is in a reducing state.

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.

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

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
September 19, 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

September 19, 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:		08/28/23	13:00
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85857

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-8

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	1.28	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	7630	53	mg/Kg	10	09/13/23	th	SW6010D
Arsenic	8.61	0.71	mg/Kg	1	09/13/23	TH	SW6010D
Barium	342	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Beryllium	0.42	0.28	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	42200	53	mg/Kg	10	09/13/23	th	SW6010D
Cadmium	2.46	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	6.84	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	20.5	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Copper	96.6	0.7	mg/kg	1	09/13/23	TH	SW6010D
Iron	27500	53	mg/Kg	10	09/13/23	th	SW6010D
Mercury	0.92	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1530	53	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	4060	5.3	mg/Kg	1	09/13/23	TH	SW6010D
Manganese	347	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	769	5.3	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	28.4	0.36	mg/Kg	1	09/13/23	TH	SW6010D
Lead	2330	36	mg/Kg	100	09/13/23	PS	SW6010D
Antimony	< 3.6	3.6	mg/Kg	1	09/13/23	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Barium	0.60	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	0.37	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	09/09/23	CPP	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-8

Phoenix I.D.: CO85857

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.2	3.2	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	20.5	0.36	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	24.7	0.36	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	940	7.1	mg/Kg	10	09/13/23	th	SW6010D	
Percent Solid	88		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.41	0.41	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	9.18	1.00	pH Units	1	08/29/23 22:18	JW	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	197		mV	1	08/29/23	JW	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.03	0.57	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	74	45	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	200	89	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	274	45	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	52		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	99		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.6	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	78		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	280	ug/Kg	10	09/02/23	KCA	SW8151A	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-8

Phoenix I.D.: CO85857

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2800	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	280	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	280	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	71		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	67		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	74	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	55		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	56		%	2	09/03/23	KCA	30 - 150 %
% TCMX	60		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	53		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.2	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.2	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.2	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.7	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.7	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	37	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	3.0	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.7	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.4	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	42		%	2	09/05/23	AW	30 - 150 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	43		%	2	09/05/23	AW	30 - 150 %	
% TCMX	48		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	52		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	62		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	66		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	92		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	96		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	84		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	85		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	470	440	mg/Kg	10	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	10	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	Diluted Out		%	10	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	36	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	4.8	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	6.0	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	08/30/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	88		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	90	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	6.0	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	100		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	88		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	99		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	98		%	10	08/31/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	96		%	10	08/31/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	99		%	10	08/31/23	HM	70 - 130 %	
% Toluene-d8 (10x)	94		%	10	08/31/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	9200	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	2900	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	23000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	330	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	2900	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	2200	ug/Kg	5	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	2900	ug/Kg	5	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	5300	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	2900	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	5300	ug/Kg	5	09/01/23	KCA	SW8270D	
Acenaphthene	41000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Acenaphthylene	20000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Acetophenone	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Anthracene	140000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Atrazine	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benz(a)anthracene	220000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	220000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	270000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	110000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	34000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Caprolactam	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Carbazole	45000	18000	ug/Kg	50	09/01/23	KCA	SW8270D	
Chrysene	180000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	36000	920	ug/Kg	5	09/01/23	KCA	SW8270D	
Dibenzofuran	52000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	3700	ug/Kg	5	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Fluoranthene	640000	64000	ug/Kg	250	09/05/23	KCA	SW8270D	
Fluorene	91000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	370	ug/Kg	5	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	120000	13000	ug/Kg	50	09/01/23	KCA	SW8270D	
Isophorone	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Naphthalene	31000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	920	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	800	ug/Kg	5	09/01/23	KCA	SW8270D	
Phenanthrene	600000	64000	ug/Kg	250	09/05/23	KCA	SW8270D	
Phenol	ND	330	ug/Kg	5	09/01/23	KCA	SW8270D	
Pyrene	490000	64000	ug/Kg	250	09/05/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol (5x)	Interference		%	5	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl (5x)	95		%	5	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol (5x)	76		%	5	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5 (5x)	91		%	5	09/01/23	KCA	30 - 130 %	
% Phenol-d5 (5x)	89		%	5	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14 (5x)	99		%	5	09/01/23	KCA	30 - 130 %	
% 2,4,6-Tribromophenol (50x)	>200		%	50	09/01/23	KCA	30 - 130 %	3
% 2-Fluorobiphenyl (50x)	75		%	50	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol (50x)	70		%	50	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5 (50x)	84		%	50	09/01/23	KCA	30 - 130 %	
% Phenol-d5 (50x)	68		%	50	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14 (50x)	80		%	50	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl (250x)	77		%	250	09/05/23	KCA	30 - 130 %	
% Nitrobenzene-d5 (250x)	72		%	250	09/05/23	KCA	30 - 130 %	
% Terphenyl-d14 (250x)	112		%	250	09/05/23	KCA	30 - 130 %	

TCLP Acid/Base-Neutral

1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	117		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	78		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	57		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	86		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	53		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	87		%	1	09/06/23	KCA	30 - 130 %	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-8

Phoenix I.D.: CO85857

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Semivolatile Library Search	Completed				09/01/23	AW	

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram was not a perfect match with any of the standards, but contains a distribution in the C20 to C36 range. The sample was quantitated against a C9-C36 standard.

Hexavalent Chromium:
This sample is in a reducing state.

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

Semi-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.

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
September 19, 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

September 19, 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:		08/28/23	12:40
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85858

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.42	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	7160	62	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	7.15	0.83	mg/Kg	1	09/13/23	TH	SW6010D
Barium	250	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Beryllium	0.37	0.33	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	26200	62	mg/Kg	10	09/13/23	TH	SW6010D
Cadmium	0.92	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	5.90	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	17.3	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Copper	80.9	0.8	mg/kg	1	09/13/23	TH	SW6010D
Iron	17800	62	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	0.79	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1420	62	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	2190	6.2	mg/Kg	1	09/13/23	TH	SW6010D
Manganese	203	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	1200	6.2	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	14.9	0.42	mg/Kg	1	09/13/23	TH	SW6010D
Lead	522	4.2	mg/Kg	10	09/13/23	TH	SW6010D
Antimony	< 4.2	4.2	mg/Kg	1	09/13/23	TH	SW6010D
Selenium	< 1.7	1.7	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Barium	0.41	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Phoenix I.D.: CO85858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.7	3.7	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	17.3	0.42	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	20.3	0.42	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	154	0.8	mg/Kg	1	09/13/23	TH	SW6010D	
Percent Solid	86		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.43	0.43	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	9.04	1.00	pH Units	1	08/29/23 22:18	JW	SW846 9045D	1
Reactivity Cyanide	< 6	6	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	205		mV	1	08/29/23	JW	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	5.73	0.58	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	210	46	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	300	93	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	510	46	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	72		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	119		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	7.9	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	75		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Phoenix I.D.: CO85858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4-DB	ND	2900	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	140	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	290	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	72		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	64		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	77	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	64		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	59		%	2	09/03/23	KCA	30 - 150 %
% TCMX	63		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	57		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.3	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	15	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	15	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	150	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	65		%	2	09/05/23	AW	30 - 150 %

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Phoenix I.D.: CO85858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% DCBP (Confirmation)	88		%	2	09/05/23	AW	30 - 150 %	
% TCMX	58		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	69		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	57		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	61		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	85		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	63		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	88		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	80		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	320	160	mg/Kg	10	08/30/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	10	08/30/23	KCA	50 - 150 %	
% Terphenyl (surr)	Diluted Out		%	10	08/30/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Phoenix I.D.: CO85858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	36	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	4.7	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	30	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	5.9	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	87		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	89	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	5.9	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	87		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	97		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	96		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	08/31/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	96		%	10	08/31/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	98		%	10	08/31/23	HM	70 - 130 %	
% Toluene-d8 (10x)	95		%	10	08/31/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-9

Phoenix I.D.: CO85858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	610	ug/Kg	1	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	560	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	610	ug/Kg	1	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	610	ug/Kg	1	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	610	ug/Kg	1	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	1100	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthene	1600	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acenaphthylene	760	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Acetophenone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Anthracene	3400	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Atrazine	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benz(a)anthracene	15000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	15000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	18000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	5100	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	3700	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Caprolactam	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Carbazole	1600	380	ug/Kg	1	09/01/23	KCA	SW8270D	
Chrysene	12000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	1700	190	ug/Kg	1	09/01/23	KCA	SW8270D	
Dibenzofuran	1000	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	770	ug/Kg	1	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Fluoranthene	33000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Fluorene	1800	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	6200	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Isophorone	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Naphthalene	1000	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	380	ug/Kg	1	09/01/23	KCA	SW8270D	
Phenanthrene	20000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
Phenol	ND	270	ug/Kg	1	09/01/23	KCA	SW8270D	
Pyrene	27000	1300	ug/Kg	5	09/01/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	85		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl	76		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol	60		%	1	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5	77		%	1	09/01/23	KCA	30 - 130 %	
% Phenol-d5	73		%	1	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14	65		%	1	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl (5x)	76		%	5	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5 (5x)	87		%	5	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14 (5x)	80		%	5	09/01/23	KCA	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	116		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	73		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	57		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	82		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	53		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	91		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram was not a perfect match with any of the standards, but contains a distribution in the C20 to C36 range. The sample was quantitated against a C9-C36 standard.

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

September 19, 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

September 19, 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:		08/28/23	10:50
Location Code:	AES-EASTSIDE	Received by:	CP	08/29/23	17:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0897				

Laboratory Data

SDG ID: GCO85850
Phoenix ID: CO85859

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Aluminum	4830	57	mg/Kg	10	09/13/23	TH	SW6010D
Arsenic	3.85	0.76	mg/Kg	1	09/13/23	TH	SW6010D
Barium	56.5	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Beryllium	0.35	0.30	mg/Kg	1	09/13/23	TH	SW6010D
Calcium	22800	57	mg/Kg	10	09/13/23	TH	SW6010D
Cadmium	0.72	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Cobalt	5.64	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Chromium	10.7	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Copper	73.3	0.8	mg/kg	1	09/13/23	TH	SW6010D
Iron	14200	57	mg/Kg	10	09/13/23	TH	SW6010D
Mercury	0.22	0.03	mg/Kg	2	08/31/23	PM	SW7471B
Potassium	1210	57	mg/Kg	10	09/13/23	th	SW6010D
Magnesium	2950	5.7	mg/Kg	1	09/13/23	TH	SW6010D
Manganese	219	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Sodium	1020	5.7	mg/Kg	1	09/13/23	TH	SW6010D
Nickel	12.8	0.38	mg/Kg	1	09/13/23	TH	SW6010D
Lead	162	3.8	mg/Kg	10	09/13/23	TH	SW6010D
Antimony	< 3.8	3.8	mg/Kg	1	09/13/23	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	09/13/23	TH	SW6010D
TCLP Silver	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Arsenic	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Barium	0.25	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Cadmium	< 0.050	0.050	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Chromium	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Mercury	< 0.0002	0.0002	mg/L	1	08/31/23	PM	SW846 1311/7470
TCLP Lead	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010
TCLP Selenium	< 0.10	0.10	mg/L	1	08/30/23	TH	SW846 1311/6010D

Ver 1

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-10

Phoenix I.D.: CO85859

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Thallium	< 3.4	3.4	mg/Kg	1	09/13/23	TH	SW6010D	
TCLP Metals Digestion	Completed				08/30/23	ZT/AL/AL	SW3010A	
Trivalent Chromium	10.7	0.38	mg/kg	1	09/13/23		CALC 6010-7196	
Vanadium	25.0	0.38	mg/Kg	1	09/13/23	TH	SW6010D	
Zinc	58.1	0.8	mg/Kg	1	09/13/23	TH	SW6010D	
Percent Solid	93		%		08/29/23	CV	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	08/29/23	JW	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/01/23	G	SW1010B	
Chromium, Hex. (SW3060A digestion	< 0.36	0.36	mg/Kg	1	08/31/23	DK	SW7196A	
Ignitability	Passed	140	degree F	1	09/01/23	G	SW846-Ignit	1
pH at 25C - Soil	11.4	1.00	pH Units	1	08/29/23 22:19	JW	SW846 9045D	1
Reactivity Cyanide	< 5	5	mg/Kg	1	08/31/23	DK/GD	SW846 7.3.3.1/90	1
Reactivity Sulfide	< 20	20	mg/Kg	1	08/31/23	DK/GD	SW846 CH7	1
Reactivity	Negative		Pos/Neg	1	08/31/23	DK/GD	SW846-React	1
Redox Potential	98.9		mV	1	08/29/23	JW	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	08/31/23	CL/GD	SW9012B	
Mercury Digestion	Completed				08/30/23	AL/AL	SW7471B	
Extraction of NY ETPH	Completed				08/29/23	R/JDW	SW3546	
Soil Extraction for Herbicide	Completed				08/30/23	L/D	SW3546	
NJ EPH Extraction	Completed				08/29/23	C/JDW	NJDEP 10-08 R3	
Soil Extraction for PCB	Completed				09/01/23	C/F	SW3546	
Soil Extraction for Pesticides	Completed				09/01/23	C/F	SW3546	
Soil Extraction for SVOA	Completed				08/31/23	U/A	SW3546	
TCLP Digestion Mercury	Completed				08/30/23	ZT/AL/AL	SW7470A	
TCLP Herbicides Extraction	Completed				08/30/23	RB/CV/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				08/29/23	ZT	SW1311	
TCLP Extraction for Organics	Completed				08/29/23	ZT	SW1311	
TCLP Pesticides Extraction	Completed				09/01/23	P/P	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/05/23	I/I	SW3510C	
TCLP Extraction Volatiles	Completed				08/29/23	HT	SW1311	
Total Metals Digest	Completed				08/29/23	P/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	42	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
C9-C28	ND	84	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
Total EPH	ND	42	mg/kg	5	08/31/23	AW	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	58		%	5	08/31/23	AW	40 - 140 %	
% Terphenyl (surr)	68		%	5	08/31/23	AW	40 - 140 %	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	6.1	mg/Kg	50	08/31/23	RM	SW8015D GRO	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	72		%	50	08/31/23	RM	70 - 130 %	
Chlorinated Herbicides								
2,4,5-T	ND	130	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4,5-TP (Silvex)	ND	130	ug/Kg	10	09/02/23	KCA	SW8151A	
2,4-D	ND	270	ug/Kg	10	09/02/23	KCA	SW8151A	

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2,4-DB	ND	2700	ug/Kg	10	09/02/23	KCA	SW8151A
Dalapon	ND	130	ug/Kg	10	09/02/23	KCA	SW8151A
Dicamba	ND	130	ug/Kg	10	09/02/23	KCA	SW8151A
Dichloroprop	ND	270	ug/Kg	10	09/02/23	KCA	SW8151A
Dinoseb	ND	270	ug/Kg	10	09/02/23	KCA	SW8151A
QA/QC Surrogates							
% DCAA	70		%	10	09/02/23	KCA	30 - 150 %
% DCAA (Confirmation)	59		%	10	09/02/23	KCA	30 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1221	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1232	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1242	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1248	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1254	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1260	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1262	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
PCB-1268	ND	71	ug/Kg	2	09/03/23	KCA	SW8082A
QA/QC Surrogates							
% DCBP	57		%	2	09/03/23	KCA	30 - 150 %
% DCBP (Confirmation)	65		%	2	09/03/23	KCA	30 - 150 %
% TCMX	51		%	2	09/03/23	KCA	30 - 150 %
% TCMX (Confirmation)	57		%	2	09/03/23	KCA	30 - 150 %
Pesticides - Soil							
4,4' -DDD	ND	2.1	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDE	ND	2.1	ug/Kg	2	09/05/23	AW	SW8081B
4,4' -DDT	ND	2.1	ug/Kg	2	09/05/23	AW	SW8081B
a-BHC	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
a-Chlordane	ND	3.5	ug/Kg	2	09/05/23	AW	SW8081B
Aldrin	ND	3.5	ug/Kg	2	09/05/23	AW	SW8081B
b-BHC	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Chlordane	ND	35	ug/Kg	2	09/05/23	AW	SW8081B
d-BHC	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Dieldrin	ND	3.5	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan I	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan II	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Endosulfan sulfate	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Endrin	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Endrin aldehyde	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Endrin ketone	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	09/05/23	AW	SW8081B
g-Chlordane	ND	3.5	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Heptachlor epoxide	ND	7.1	ug/Kg	2	09/05/23	AW	SW8081B
Methoxychlor	ND	35	ug/Kg	2	09/05/23	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	09/05/23	AW	SW8081B
QA/QC Surrogates							
% DCBP	66		%	2	09/05/23	AW	30 - 150 %

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% DCBP (Confirmation)	67		%	2	09/05/23	AW	30 - 150 %	
% TCMX	54		%	2	09/05/23	AW	30 - 150 %	
% TCMX (Confirmation)	56		%	2	09/05/23	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	50	ug/L	10	08/31/23	KCA	SW846 1311/8151	
2,4-D	ND	100	ug/L	10	08/31/23	KCA	SW846 1311/8151	
QA/QC Surrogates								
% DCAA	63		%	10	08/31/23	KCA	30 - 150 %	
% DCAA (Confirmation)	68		%	10	08/31/23	KCA	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/05/23	AW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/05/23	AW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/05/23	AW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/05/23	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	107		%	10	09/05/23	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	98		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec)	92		%	10	09/05/23	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	88		%	10	09/05/23	AW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	ND	530	mg/Kg	10	08/31/23	KCA	SW-846 8015	
QA/QC Surrogates								
% COD (surr)	96		%	10	08/31/23	KCA	50 - 150 %	
% Terphenyl (surr)	92		%	10	08/31/23	KCA	50 - 150 %	
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1,2-Trichloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D	
1,1-Dichloroethene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D	

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1,2,3-Trichlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dibromoethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,2-Dichloropropane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
2-Hexanone	ND	27	ug/kg	1	08/30/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	27	ug/kg	1	08/30/23	JLI	SW8260D
Acetone	ND	50	ug/kg	1	08/30/23	JLI	SW8260D
Benzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromochloromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromodichloromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromoform	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Bromomethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Carbon Disulfide	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Carbon tetrachloride	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Chlorobenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloroform	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Chloromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Cyclohexane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Dibromochloromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Dichlorodifluoromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Ethylbenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Isopropylbenzene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
m&p-Xylene	8.0	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Methyl ethyl ketone	ND	33	ug/kg	1	08/30/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	08/30/23	JLI	SW8260D
Methylacetate	ND	4.4	ug/kg	1	08/30/23	JLI	SW8260D
Methylcyclohexane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Methylene chloride	ND	27	ug/kg	1	08/30/23	JLI	SW8260D
o-Xylene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Styrene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Tetrachloroethene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Toluene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Total Xylenes	8.0	5.5	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichloroethene	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorofluoromethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
Vinyl chloride	ND	5.5	ug/kg	1	08/30/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	08/30/23	JLI	70 - 130 %

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	92		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
1,4-dioxane								
1,4-dioxane	ND	82	ug/kg	1	08/30/23	JLI	SW8260D	
Volatiles								
1,2,3-Trichloropropane	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,2,4-Trimethylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3,5-Trimethylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
1,3-Dichloropropane	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Butylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
n-Propylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
p-Isopropyltoluene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
sec-Butylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
tert-Butylbenzene	ND	5.5	ug/Kg	1	08/30/23	JLI	SW8260D	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	97		%	1	08/30/23	JLI	70 - 130 %	
% Bromofluorobenzene	92		%	1	08/30/23	JLI	70 - 130 %	
% Dibromofluoromethane	92		%	1	08/30/23	JLI	70 - 130 %	
% Toluene-d8	95		%	1	08/30/23	JLI	70 - 130 %	
TCLP Volatiles								
1,1-Dichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
1,2-Dichloroethane	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Benzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Carbon tetrachloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chlorobenzene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Chloroform	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Methyl ethyl ketone	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Tetrachloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Trichloroethene	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
Vinyl chloride	ND	50	ug/L	10	08/31/23	HM	SW846 1311/8260	
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (10x)	99		%	10	08/31/23	HM	70 - 130 %	
% Bromofluorobenzene (10x)	95		%	10	08/31/23	HM	70 - 130 %	
% Dibromofluoromethane (10x)	97		%	10	08/31/23	HM	70 - 130 %	
% Toluene-d8 (10x)	93		%	10	08/31/23	HM	70 - 130 %	
Volatile Library Search	Completed				08/30/23	JLI		
Semivolatiles								
1,1-Biphenyl	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,2'-Oxybis(1-Chloropropane)	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	1
2,3,4,6-tetrachlorophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4,5-Trichlorophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4,6-Trichlorophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dichlorophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
2,4-Dimethylphenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dinitrophenol	ND	2800	ug/Kg	5	09/01/23	KCA	SW8270D	
2,4-Dinitrotoluene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2,6-Dinitrotoluene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Chloronaphthalene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Chlorophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Methylnaphthalene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Methylphenol (o-cresol)	ND	330	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Nitroaniline	ND	2800	ug/Kg	5	09/01/23	KCA	SW8270D	
2-Nitrophenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	1
3,3'-Dichlorobenzidine	ND	2100	ug/Kg	5	09/01/23	KCA	SW8270D	
3-Nitroaniline	ND	2800	ug/Kg	5	09/01/23	KCA	SW8270D	
4,6-Dinitro-2-methylphenol	ND	5200	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Bromophenyl phenyl ether	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chloro-3-methylphenol	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chloroaniline	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Chlorophenyl phenyl ether	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Nitroaniline	ND	2800	ug/Kg	5	09/01/23	KCA	SW8270D	
4-Nitrophenol	ND	5200	ug/Kg	5	09/01/23	KCA	SW8270D	
Acenaphthene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Acenaphthylene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Acetophenone	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Anthracene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Atrazine	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Benz(a)anthracene	ND	1000	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzaldehyde	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(a)pyrene	3800	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(b)fluoranthene	2700	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(ghi)perylene	3400	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzo(k)fluoranthene	970	800	ug/Kg	5	09/01/23	KCA	SW8270D	
Benzyl butyl phthalate	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-chloroethoxy)methane	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-chloroethyl)ether	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
Bis(2-ethylhexyl)phthalate	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Caprolactam	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Carbazole	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
Chrysene	ND	1000	ug/Kg	5	09/01/23	KCA	SW8270D	
Dibenz(a,h)anthracene	950	890	ug/Kg	5	09/01/23	KCA	SW8270D	
Dibenzofuran	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Diethyl phthalate	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Dimethylphthalate	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Di-n-butylphthalate	ND	3600	ug/Kg	5	09/01/23	KCA	SW8270D	
Di-n-octylphthalate	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Fluoranthene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Fluorene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Hexachlorobenzene	ND	360	ug/Kg	5	09/01/23	KCA	SW8270D	
Hexachlorobutadiene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Hexachlorocyclopentadiene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	

Project ID: EAST SIDE COASTAL RESILIENCY
Client ID: FG-10

Phoenix I.D.: CO85859

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Hexachloroethane	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Indeno(1,2,3-cd)pyrene	3800	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Isophorone	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Naphthalene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Nitrobenzene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodimethylamine	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodi-n-propylamine	ND	890	ug/Kg	5	09/01/23	KCA	SW8270D	
N-Nitrosodiphenylamine	ND	1800	ug/Kg	5	09/01/23	KCA	SW8270D	
Pentachlorophenol	ND	800	ug/Kg	5	09/01/23	KCA	SW8270D	
Phenanthrene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
Phenol	ND	330	ug/Kg	5	09/01/23	KCA	SW8270D	
Pyrene	ND	1200	ug/Kg	5	09/01/23	KCA	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol (5x)	80		%	5	09/01/23	KCA	30 - 130 %	
% 2-Fluorobiphenyl (5x)	98		%	5	09/01/23	KCA	30 - 130 %	
% 2-Fluorophenol (5x)	73		%	5	09/01/23	KCA	30 - 130 %	
% Nitrobenzene-d5 (5x)	96		%	5	09/01/23	KCA	30 - 130 %	
% Phenol-d5 (5x)	95		%	5	09/01/23	KCA	30 - 130 %	
% Terphenyl-d14 (5x)	87		%	5	09/01/23	KCA	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
2-Methylphenol (o-cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
3&4-Methylphenol (m&p-Cresol)	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachlorobutadiene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Hexachloroethane	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Nitrobenzene	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pentachlorophenol	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
Pyridine	ND	83	ug/L	1	09/06/23	KCA	SW-846 1311/8270	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	118		%	1	09/06/23	KCA	15 - 110 %	3
% 2-Fluorobiphenyl	72		%	1	09/06/23	KCA	30 - 130 %	
% 2-Fluorophenol	57		%	1	09/06/23	KCA	15 - 110 %	
% Nitrobenzene-d5	84		%	1	09/06/23	KCA	30 - 130 %	
% Phenol-d5	55		%	1	09/06/23	KCA	15 - 110 %	
% Terphenyl-d14	88		%	1	09/06/23	KCA	30 - 130 %	
Semivolatile Library Search	Completed				09/01/23	AW		

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.

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

Semi-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.

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
September 19, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: DMSP-1

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85850

Sample wt/vol: 5.41 (g/mL) g Lab File ID: 0829_13.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 12 Date Analyzed: 08/29/23

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: DMSP-2

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85851

Sample wt/vol: 4.66 (g/mL) g Lab File ID: 0829_14.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 27 Date Analyzed: 08/30/23

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: DMSP-3

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85852

Sample wt/vol: 5.84 (g/mL) g Lab File ID: 0830_17.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 Date Analyzed: 08/30/23

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: FG-4

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85853

Sample wt/vol: 5.79 (g/mL) g Lab File ID: 0829_16.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 4 Date Analyzed: 08/30/23

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: FG-5

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85854

Sample wt/vol: 6.04 (g/mL) g Lab File ID: 0829_17.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 Date Analyzed: 08/30/23

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: FG-6

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85855

Sample wt/vol: 4.98 (g/mL) g Lab File ID: 0829_18.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 15 Date Analyzed: 08/30/23

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: FG-7

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85856

Sample wt/vol: 5.56 (g/mL) g Lab File ID: 0831_56.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 Date Analyzed: 09/01/23

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
91-20-3	Naphthalene	8.78	35	Q
000090-12-0	Naphthalene, 1-methyl-	9.515	6.6	JN
000091-57-6	Naphthalene, 2-methyl-	9.615	12	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: FG-8

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85857

Sample wt/vol: 4.71 (g/mL) g Lab File ID: 0829_19.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 12 Date Analyzed: 08/30/23

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: FG-9

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85858

Sample wt/vol: 4.92 (g/mL) g Lab File ID: 0829_20.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 Date Analyzed: 08/30/23

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: FG-10

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85859

Sample wt/vol: 4.89 (g/mL) g Lab File ID: 0829_21.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 7 Date Analyzed: 08/30/23

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
000138-86-3	Limonene	6.546	11	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.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: DMSP-1

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water) SOIL Lab Sample ID: CO85850

Sample wt/vol: 15.16 (g/mL) g Lab File ID: 0831_28.D

Level: (low/med) Low Date Received: 08/29/23

% Moisture: not dec. 12 decanted:(Y/N) NA Date Extracted: 09/01/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 9/1/2023

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-	1.846	2800	JNA
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.087	4800	JNA
	unknown hydrocarbon	2.686	1200	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	5.776	1400	JNC
000629-73-2	1-Hexadecene	6.869	740	JN
002531-84-2	Phenanthrene, 2-methyl-	7.404	610	JN
	Phenanthrene, 2-methyl- Isomer	7.427	560	JN
000203-64-5	4H-Cyclopenta[def]phenanthrene	7.498	2000	JN
003674-66-6	Phenanthrene, 2,5-dimethyl-	7.898	590	JN
001576-67-6	Phenanthrene, 3,6-dimethyl-	7.974	470	JN
	unknown hydrocarbon	8.291	610	J
000483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	8.503	1700	JN
002381-21-7	Pyrene, 1-methyl-	8.644	460	JN
000192-97-2	Benzo[e]pyrene	12.069	1100	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: DMSP-2

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85851

Sample wt/vol: 15.25 (g/mL) g | Lab File ID: 0831_29.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 27 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

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-	1.846	1400	JNA
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.087	4100	JNA
	unknown hydrocarbon	2.692	1600	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	5.776	1800	JNC
000112-88-9	1-Octadecene	6.869	1100	JN
000057-10-3	n-Hexadecanoic acid	7.486	2400	JN
000832-69-9	Phenanthrene, 1-methyl-	7.521	670	JN
	unknown hydrocarbon	7.615	860	J
035465-71-5	2-Phenylnaphthalene	7.668	570	JN
1000293-16-6	18-Norabietane	7.715	2400	JN
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthr	7.803	830	JN
000661-19-8	Behenic alcohol	8.291	970	JN
000483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	8.509	2600	JN
000050-32-8	Benzo[a]pyrene	12.063	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.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: DMSP-3

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85852

Sample wt/vol: 15.05 (g/mL) g | Lab File ID: 0831_29.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 14 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

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
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.448	3300	JNA
	unknown hydrocarbon	3.065	950	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.197	1600	JNC
006765-39-5	1-Heptadecene	7.284	1100	JN
	unknown hydrocarbon	8.107	2700	J
1000293-16-6	18-Norabietane	8.171	2700	JN
	unknown hydrocarbon	8.254	1700	J
001576-67-6	Phenanthrene, 3,6-dimethyl-	8.395	940	JN
	unknown hydrocarbon	8.541	3000	J
019713-49-6	9-Ethyl-10-methylanthracene	8.782	2900	JN
000483-65-8	Phenanthrene, 1-methyl-7-(1-methyl	9.064	18000	JN
	unknown hydrocarbon	9.693	1300	J
	unknown hydrocarbon	10.005	9400	J
000050-32-8	Benzo[a]pyrene	13.089	960	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: FG-4

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85853

Sample wt/vol: 15.01 (g/mL) g | Lab File ID: 0831_15.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 4 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

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

Injection Volume: 1 (uL)

Number TICs found: 5 | 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-	2.448	2100	JNA
004436-75-3	3-Hexene-2,5-dione	3.059	390	JNC
	unknown hydrocarbon	3.312	450	JN
	unknown hydrocarbon	3.729	310	JN
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.191	1400	JNC

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: FG-5

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85854

Sample wt/vol: 15.07 (g/mL) g Lab File ID: 0831_18.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 decanted:(Y/N) NA Date Extracted: 09/01/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 9/1/2023

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

Injection Volume: 1 (uL)

Number TICs found: 4 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-	2.448	2300	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.191	1600	JNC
074685-29-3	9-Eicosene, (E)-	7.284	970	JN
	unknown hydrocarbon	8.753	1100	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.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FG-6

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85855

Sample wt/vol: 15.24 (g/mL) g | Lab File ID: 0831_19.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 15 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

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

Injection Volume: 1 (uL)

Number TICs found: 4 | 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-	2.448	2400	JNA
001069-53-0	Hexane, 2,3,5-trimethyl-	3.324	330	JNC
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.191	1300	JNC
074685-29-3	9-Eicosene, (E)-	7.284	860	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: FG-7

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85856

Sample wt/vol: 15.27 (g/mL) g | Lab File ID: 0831_32.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 14 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

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
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.454	2700	JNA
000110-81-6	Diethyl disulfide	2.977	1100	JNC
000090-12-0	Naphthalene, 1-methyl-	5.274	1700	JN
000582-16-1	Naphthalene, 2,7-dimethyl-	5.733	1200	JN
000581-42-0	Naphthalene, 2,6-dimethyl-	5.797	1600	JN
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.197	1700	JNC
007320-53-8	Dibenzofuran, 4-methyl-	6.720	1400	JN
	Benzo[e]pyrene Isomer	12.760	7100	JN
000192-97-2	Benzo[e]pyrene	13.212	19000	JN
000198-55-0	Perylene	13.553	8500	JN
000215-58-7	Benzo[b]triphenylene	15.962	5900	JN
001849-27-0	p-Bis(phenylethynyl)benzene	16.262	1900	JN
	1,2:7,8-Dibenzophenanthrene Isomer	16.356	5900	JN
000213-46-7	1,2:7,8-Dibenzophenanthrene	16.409	4400	JN
000191-24-2	Benzo[ghi]perylene	16.761	5900	JN

FORM I SEMIVOA-TIC

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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: FG-8

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85857

Sample wt/vol: 15.42 (g/mL) g | Lab File ID: 0831_35.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 12 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 5

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
000090-12-0	Naphthalene, 1-methyl-	5.275	14000	JN
000581-42-0	Naphthalene, 2,6-dimethyl-	5.739	9200	JN
000581-40-8	Naphthalene, 2,3-dimethyl-	5.803	9200	JN
	Naphthalene, 2,6-dimethyl- Isomer	5.827	4900	JN
	Naphthalene, 2,3-dimethyl- Isomer	5.903	5200	JN
001855-47-6	1-Isopropenylnaphthalene	6.644	7400	JN
003218-36-8	[1,1'-Biphenyl]-4-carboxaldehyde	6.726	11000	JN
000203-64-5	4H-Cyclopenta[def]phenanthrene	7.971	5300	JN
000243-17-4	11H-Benzo[b]fluorene	9.117	3900	JN
	Benzo[e]pyrene Isomer	12.813	4100	JN
000192-97-2	Benzo[e]pyrene	13.254	8500	JN
000198-55-0	Perylene	13.612	4000	JN
000215-58-7	Benzo[b]triphenylene	15.998	3300	JN
000191-26-4	Dibenzo[def,mno]chrysene	16.802	3700	JN
000189-55-9	3,4:9,10-Dibenzopyrene	18.336	4800	JN

FORM I SEMIVOA-TIC

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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: FG-9

Lab Name: Phoenix Environmental Labs Client: AES-EASTSIDE

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCO8585

Matrix:(soil/water): SOIL Lab Sample ID: CO85858

Sample wt/vol: 15.2 (g/mL) g Lab File ID: 0831_30.D

Level: (low/med): Low Date Received: 08/29/23

% Moisture: not dec. 14 decanted:(Y/N) NA Date Extracted: 09/01/23

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 9/1/2023

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
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.454	5000	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.197	1500	JNC
000613-12-7	Anthracene, 2-methyl-	7.854	1900	JN
000832-69-9	Phenanthrene, 1-methyl-	7.877	2100	JN
000203-64-5	4H-Cyclopenta[def]phenanthrene	7.954	3300	JN
035465-71-5	2-Phenylnaphthalene	8.118	1300	JN
003018-20-0	Naphthalene, 1,2,3,4-tetrahydro-1-	8.635	1300	JN
000192-97-2	Benzo[e]pyrene	12.707	3300	JN
000198-55-0	Perylene	13.142	8000	JN
	Perylene Isomer	13.489	3300	JN
	Benzo[b]triphenylene Isomer	15.915	2600	JN
000215-58-7	Benzo[b]triphenylene	16.315	2200	JN
000213-46-7	1,2:7,8-Dibenzophenanthrene	16.362	1500	JN
000191-26-4	Dibenzo[def,mno]chrysene	16.708	2300	JN
000192-65-4	1,2:4,5-Dibenzopyrene	18.224	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.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: FG-10

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

Lab Code: Phoenix | Case No.: | SAS No.: | SDG No.: GCO8585

Matrix:(soil/water): SOIL | Lab Sample ID: CO85859

Sample wt/vol: 15.12 (g/mL) g | Lab File ID: 0831_34.D

Level: (low/med): Low | Date Received: 08/29/23

% Moisture: not dec. 7 | decanted:(Y/N) NA | Date Extracted: 09/01/23

GPC Cleanup (Y/N): N | pH: NA | Date Analyzed: 9/1/2023

Conc. Extract Volume: 1000 (uL) | Dilution Factor 5

Injection Volume: 1 (uL)

Number TICs found: 3 | 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-	2.454	39000	JNA
023676-09-7	Benzoic acid, 4-ethoxy-, ethyl est	6.203	1700	JNC
000198-55-0	Perylene	13.107	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

September 19, 2023

QA/QC Data

SDG I.D.: GCO85850

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 694817 (mg/kg), QC Sample No: CO67248 40X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.41	<0.40	NC	96.7						85 - 115	30	
Chromium, Hexavalent (Ins)						101			103			85 - 115	30	
Chromium, Hexavalent (Sol)						94.3			18.1			85 - 115	30	m
Comment:														
The QC sample is in a reducing state, acceptance criteria are not applicable for samples in a reducing state. The soluble spike was analyzed twice with similar recoveries.														
QA/QC Batch 694788 (mg/kg), QC Sample No: CO67249 2X (CO85859)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	110	112	1.8	122	117	4.2	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 694787 (mg/kg), QC Sample No: CO85301 2X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858)														
Mercury - Soil	BRL	0.02	0.28	0.23	19.6	108	111	2.7	111	110	0.9	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 694783 (mg/L), QC Sample No: CO85727 (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	104			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 694777 (mg/L), QC Sample No: CO68137 (CO85850, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.05	0.03	<0.05	NC	110	110	0.0	109			80 - 120	20	
Barium	BRL	0.01	0.29	0.34	15.9	113	112	0.9	114			80 - 120	20	
Cadmium	BRL	0.005	0.060	0.062	3.30	109	107	1.9	107			80 - 120	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	105	104	1.0	105			80 - 120	20	
Lead	BRL	0.010	0.713	0.696	2.40	111	111	0.0	112			80 - 120	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	108	109	0.9	109			80 - 120	20	
Silver	BRL	0.010	<0.010	<0.010	NC	115	113	1.8	116			80 - 120	20	
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 694778 (mg/L), QC Sample No: CO81848 (CO85858, CO85859)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.05	0.04	<0.05	NC	117	124	5.8	104			80 - 120	20	I
Barium	BRL	0.01	0.94	0.91	3.20	108	113	4.5	125			80 - 120	20	
Cadmium	BRL	0.005	0.008	0.008	NC	104	110	5.6	118			80 - 120	20	
Chromium	BRL	0.010	0.015	0.014	NC	102	108	5.7	115			80 - 120	20	
Lead	BRL	0.010	0.267	0.258	3.40	107	113	5.5	123			80 - 120	20	

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Selenium	BRL	0.05	0.03	<0.05	NC	124	105	16.6	107			80 - 120	20	l
Silver	BRL	0.010	<0.010	<0.010	NC	114	121	6.0	106			80 - 120	20	l

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 694723 (mg/kg), QC Sample No: CO85335 (CO85850, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)

ICP Metals - Soil

Aluminum	BRL	5.0	3880	4420	13.0	106	105	0.9	NC			75 - 125	35	
Antimony	BRL	3.3	<3.5	<3.3	NC	105	101	3.9	112			75 - 125	35	
Arsenic	BRL	0.67	0.84	1.22	NC	103	99.7	3.3	122			75 - 125	35	
Barium	BRL	0.33	28.7	31.1	8.00	111	106	4.6	109			75 - 125	35	
Beryllium	BRL	0.27	0.29	0.33	NC	102	98.2	3.8	120			75 - 125	35	
Cadmium	BRL	0.33	0.38	0.44	NC	104	97.1	6.9	126			75 - 125	35	m
Calcium	BRL	5.0	661	935	34.3	103	97.7	5.3	NC			75 - 125	35	
Chromium	BRL	0.33	5.76	13.3	79.1	105	102	2.9	128			75 - 125	35	m,r
Cobalt	BRL	0.33	3.26	4.80	38.2	106	100	5.8	127			75 - 125	35	m,r
Copper	BRL	0.67	6.5	11.8	57.9	102	98.6	3.4	122			75 - 125	35	r
Iron	BRL	5.0	8010	10700	28.8	106	103	2.9	NC			75 - 125	35	
Lead	BRL	0.33	4.46	4.72	5.70	99.0	97.3	1.7	94.7			75 - 125	35	
Magnesium	BRL	5.0	1370	1970	35.9	108	106	1.9	NC			75 - 125	35	r
Manganese	BRL	0.33	276	280	1.40	105	102	2.9	111			75 - 125	35	
Nickel	BRL	0.33	4.47	5.88	27.2	103	98.0	5.0	125			75 - 125	35	
Potassium	BRL	5.0	840	776	7.90	103	102	1.0	>130			75 - 125	35	m
Selenium	BRL	1.3	<1.4	<1.3	NC	104	101	2.9	118			75 - 125	35	
Silver	BRL	0.33	<0.35	<0.33	NC	101	98.3	2.7	120			75 - 125	35	
Sodium	BRL	5.0	51.6	64.2	21.8	96.4	94.0	2.5	>130			75 - 125	35	m
Thallium	BRL	3.0	<3.2	<3.0	NC	104	99.1	4.8	123			75 - 125	35	
Vanadium	BRL	0.33	18.6	28.3	41.4	106	103	2.9	102			75 - 125	35	r
Zinc	BRL	0.67	11.7	14.6	22.1	106	103	2.9	128			75 - 125	35	m

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 697187 (mg/L), QC Sample No: CO99443 (CO85851)

ICP Metals - TCLP Extraction

Arsenic	BRL	0.05	<0.05	<0.05	NC	109	110	0.9	111			80 - 120	20	
Barium	BRL	0.01	0.40	0.39	2.50	99.8	99.6	0.2	98.6			80 - 120	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	98.9	98.2	0.7	99.9			80 - 120	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	97.7	98.0	0.3	99.8			80 - 120	20	
Lead	BRL	0.010	<0.010	<0.010	NC	99.1	100	0.9	101			80 - 120	20	
Selenium	BRL	0.05	<0.05	<0.05	NC	110	113	2.7	112			80 - 120	20	
Silver	BRL	0.010	<0.010	<0.010	NC	107	109	1.9	110			80 - 120	20	

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 697081 (mg/kg), QC Sample No: CO99466 (CO85851)

ICP Metals - Soil

Aluminum	BRL	5.0	7600	6690	12.7	115	114	0.9	NC			75 - 125	35	
Antimony	BRL	3.3	<3.2	<3.8	NC	119	107	10.6	104			75 - 125	35	
Arsenic	BRL	0.67	3.68	3.42	NC	112	107	4.6	112			75 - 125	35	
Barium	BRL	0.33	71.8	55.0	26.5	113	105	7.3	108			75 - 125	35	
Beryllium	BRL	0.27	0.44	0.44	NC	118	104	12.6	108			75 - 125	35	
Cadmium	BRL	0.33	1.67	1.13	NC	122	104	15.9	109			75 - 125	35	
Calcium	BRL	5.0	12200	3240	116	105	100	4.9	NC			75 - 125	35	r

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chromium	BRL	0.33	17.8	15.3	15.1	117	105	10.8	114			75 - 125	35	
Cobalt	BRL	0.33	7.97	6.89	14.5	118	105	11.7	110			75 - 125	35	
Copper	BRL	0.67	23.5	22.3	5.20	113	106	6.4	113			75 - 125	35	
Iron	BRL	5.0	14700	14300	2.80	101	107	5.8	NC			75 - 125	35	
Lead	BRL	0.33	148	77.1	63.0	102	103	1.0	95.5			75 - 125	35	r
Magnesium	BRL	5.0	3070	2310	28.3	114	111	2.7	NC			75 - 125	35	
Manganese	BRL	0.33	335	261	24.8	107	112	4.6	121			75 - 125	35	
Nickel	BRL	0.33	38.7	34.6	11.2	122	103	16.9	123			75 - 125	35	
Potassium	BRL	5.0	736	693	6.00	104	102	1.9	>130			75 - 125	35	m
Selenium	BRL	1.3	<1.3	<1.5	NC	122	116	5.0	118			75 - 125	35	
Silver	BRL	0.33	<0.32	<0.38	NC	106	104	1.9	110			75 - 125	35	
Sodium	BRL	5.0	106	90.6	15.7	97.7	93.4	4.5	>130			75 - 125	35	m
Thallium	BRL	3.0	<2.9	<3.4	NC	112	103	8.4	106			75 - 125	35	
Vanadium	BRL	0.33	22.6	20.8	8.30	117	109	7.1	116			75 - 125	35	
Zinc	BRL	0.67	288	119	83.0	117	112	4.4	0.80			75 - 125	35	m,r

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

NY # 11301

QA/QC Report

September 19, 2023

QA/QC Data

SDG I.D.: GCO85850

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 694818 (mg/Kg), QC Sample No: CO67248 5X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)													
Reactivity Cyanide	BRL	5	<5	<5.2	NC	101						85 - 115	30
Reactivity Sulfide	BRL	20	<20	<20	NC	90.8						80 - 120	30
QA/QC Batch 694900 (mg/Kg), QC Sample No: CO85853 50X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.52	<0.52	NC	101			108			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 694762 (PH), QC Sample No: CO67248 (CO85850, CO85851, CO85852, CO85853, CO85854)													
pH			8.28	8.29	0.10	100						85 - 115	20
QA/QC Batch 695313 (Degree F), QC Sample No: CO85851 (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)													
Flash Point			>200	>200	NC	100						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 694763 (PH), QC Sample No: CO85855 (CO85855, CO85856, CO85857, CO85858, CO85859)													
pH			8.28	8.19	1.10	100						85 - 115	20

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NY # 11301

QA/QC Report

September 19, 2023

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 694732 (mg/kg), QC Sample No: CO85859 (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	10	80	76	5.1	68			40 - 140	25	
C9-C28 #2 Fuel / Diesel			85	101	17.2				40 - 140	25	
>C28-C40	ND	10	46	65	34.2	73			40 - 140	25	r
C9 - Nonane	ND	3.3	77	63	20.0	51			40 - 140	25	
C10 - Decane	ND	3.3	87	71	20.3	50			40 - 140	25	
C12 - Dodecane	ND	3.3	94	75	22.5	60			40 - 140	25	
C14 - Tetradecane	ND	3.3	96	77	22.0	67			40 - 140	25	
C16 - Hexadecane	ND	3.3	94	78	18.6	70			40 - 140	25	
C18 - Octadecane	ND	3.3	114	94	19.2	91			40 - 140	25	
C20 - Eicosane	ND	3.3	64	79	21.0	73			40 - 140	25	
C21 - Heneicosane	ND	3.3	60	71	16.8	80			40 - 140	25	
C22 - Docosane	ND	3.3	85	82	3.6	83			40 - 140	25	
C24 - Tetracosane	ND	3.3	66	65	1.5	66			40 - 140	25	
C26 - Hexacosane	ND	3.3	62	66	6.3	67			40 - 140	25	
C28 - Octacosane	ND	3.3	61	66	7.9	66			40 - 140	25	
C30 - Tricotane	ND	3.3	58	64	9.8	75			40 - 140	25	
C32 - Dotriacontance	ND	3.3	53	68	24.8	65			40 - 140	25	
C34 - Tetratriacontane	ND	3.3	52	69	28.1	68			40 - 140	25	r
C36 - Hexatriacontane	ND	3.3	42	61	36.9	66			40 - 140	25	r
C38 - Octatriacontane	ND	3.3	35	55	44.4	98			40 - 140	25	l,r
C40 - Tetracontane	ND	3.3	36	67	60.2	68			40 - 140	25	l,r
% COD (surr)	86	%	76	63	18.7	63			40 - 140	25	
% Terphenyl (surr)	94	%	100	66	41.0	68			40 - 140	25	r
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 694729 (mg/Kg), QC Sample No: CO85781 (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum HC	ND	50	88			57	51	11.1	30 - 130	30	
% COD (surr)	40	%	88			72	60	18.2	50 - 150	30	s
% Terphenyl (surr)	50	%	70			71	60	16.8	50 - 150	30	
Comment:											
There was no LCSD to report for this batch.											
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 695073 (mg/Kg), QC Sample No: CO85850 50X (CO85850 (50X) , CO85851 (50X) , CO85852 (50X) , CO85853 (50X) , CO85854 (50X) , CO85855 (50X) , CO85856 (50X) , CO85857 (50X) , CO85858 (50X) , CO85859 (50X))											
Gasoline Range Hydrocarbons (C6C10) - Soil											
GRO (C6-C10)	ND	4.7	80	77	3.8	91	85	6.8	70 - 130	30	

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% 2,5-Dibromotoluene (FID)	80	%		85	87	2.3	88	83	5.8	70 - 130	30	
QA/QC Batch 694793 (ug/L), QC Sample No: CO85046 10X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)												
Chlorinated Herbicides												
2,4,5-TP (Silvex)	ND	2.5		89	84	5.8				40 - 140	20	
2,4-D	ND	5.0		96	90	6.5				40 - 140	20	
% DCAA (Surrogate Rec)	116	%		123	117	5.0				30 - 150	20	
% DCAA (Surrogate Rec) (Confirm	128	%		130	121	7.2				30 - 150	20	
Comment:												
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.												
QA/QC Batch 694941 (ug/Kg), QC Sample No: CO87222 10X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)												
Chlorinated Herbicides - Soil												
2,4,5-T	ND	130		73	69	5.6	48	65	30.1	40 - 140	30	
2,4,5-TP (Silvex)	ND	130		86	81	6.0	58	68	15.9	40 - 140	30	
2,4-D	ND	250		81	79	2.5	57	69	19.0	40 - 140	30	
2,4-DB	ND	2500		91	86	5.6	48	90	60.9	40 - 140	30	r
Dalapon	ND	130		62	63	1.6	60	54	10.5	40 - 140	30	
Dicamba	ND	130		103	103	0.0	87	74	16.1	40 - 140	30	
Dichloroprop	ND	130		80	77	3.8	60	71	16.8	40 - 140	30	
Dinoseb	ND	130		74	73	1.4	75	77	2.6	40 - 140	30	
% DCAA (Surrogate Rec)	76	%		110	108	1.8	76	101	28.2	30 - 150	30	
% DCAA (Surrogate Rec) (Confirm	73	%		97	103	6.0	73	96	27.2	30 - 150	30	
Comment:												
Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.												
QA/QC Batch 695150 (ug/Kg), QC Sample No: CO80341 2X (CO85850)												
Polychlorinated Biphenyls - Soil												
PCB-1016	ND	33		73	70	4.2	51	68	28.6	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		66	70	5.9	50	67	29.1	40 - 140	30	
PCB-1262	ND	33								40 - 140	30	
PCB-1268	ND	33								40 - 140	30	
% DCBP (Surrogate Rec)	60	%		86	73	16.4	50	67	29.1	30 - 150	30	
% DCBP (Surrogate Rec) (Confirm	73	%		96	78	20.7	53	74	33.1	30 - 150	30	r
% TCMX (Surrogate Rec)	51	%		71	61	15.2	45	58	25.2	30 - 150	30	
% TCMX (Surrogate Rec) (Confirm	52	%		72	66	8.7	47	62	27.5	30 - 150	30	
QA/QC Batch 695386 (ug/Kg), QC Sample No: CO80429 2X (CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)												
Polychlorinated Biphenyls - Soil												
PCB-1016	ND	33		75	69	8.3	69	60	14.0	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		71	65	8.8	64	55	15.1	40 - 140	30	
PCB-1262	ND	33								40 - 140	30	

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	65	%	92	82	11.5	79	70	12.1	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	71	%	93	81	13.8	78	68	13.7	30 - 150	30
% TCMX (Surrogate Rec)	53	%	76	66	14.1	68	58	15.9	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	54	%	78	69	12.2	70	61	13.7	30 - 150	30
QA/QC Batch 695151 (ug/Kg), QC Sample No: CO80341 2X (CO85850)										
Pesticides - Soil										
4,4' -DDD	ND	1.7	64	65	1.6	66	61	7.9	40 - 140	30
4,4' -DDE	ND	1.7	60	62	3.3	64	60	6.5	40 - 140	30
4,4' -DDT	ND	1.7	59	60	1.7	61	57	6.8	40 - 140	30
a-BHC	ND	1.0	59	58	1.7	58	59	1.7	40 - 140	30
a-Chlordane	ND	3.3	71	73	2.8	71	68	4.3	40 - 140	30
Aldrin	ND	1.0	60	62	3.3	63	61	3.2	40 - 140	30
b-BHC	ND	1.0	64	65	1.6	68	65	4.5	40 - 140	30
Chlordane	ND	33	70	72	2.8	73	70	4.2	40 - 140	30
d-BHC	ND	3.3	50	53	5.8	57	55	3.6	40 - 140	30
Dieldrin	ND	1.0	63	66	4.7	76	71	6.8	40 - 140	30
Endosulfan I	ND	3.3	57	60	5.1	64	61	4.8	40 - 140	30
Endosulfan II	ND	3.3	57	58	1.7	63	59	6.6	40 - 140	30
Endosulfan sulfate	ND	3.3	47	48	2.1	50	47	6.2	40 - 140	30
Endrin	ND	3.3	62	63	1.6	68	63	7.6	40 - 140	30
Endrin aldehyde	ND	3.3	62	63	1.6	58	61	5.0	40 - 140	30
Endrin ketone	ND	3.3	59	60	1.7	64	60	6.5	40 - 140	30
g-BHC	ND	1.0	60	61	1.7	62	62	0.0	40 - 140	30
g-Chlordane	ND	3.3	70	72	2.8	73	70	4.2	40 - 140	30
Heptachlor	ND	3.3	59	60	1.7	61	61	0.0	40 - 140	30
Heptachlor epoxide	ND	3.3	50	51	2.0	55	54	1.8	40 - 140	30
Methoxychlor	ND	3.3	63	66	4.7	69	62	10.7	40 - 140	30
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30
% DCBP	62	%	61	60	1.7	61	57	6.8	30 - 150	30
% DCBP (Confirmation)	45	%	43	42	2.4	45	41	9.3	30 - 150	30
% TCMX	58	%	59	59	0.0	58	57	1.7	30 - 150	30
% TCMX (Confirmation)	52	%	52	52	0.0	54	51	5.7	30 - 150	30
QA/QC Batch 695389 (ug/Kg), QC Sample No: CO80429 2X (CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)										
Pesticides - Soil										
4,4' -DDD	ND	1.7	88	83	5.8	70	70	0.0	40 - 140	30
4,4' -DDE	ND	1.7	85	81	4.8	69	69	0.0	40 - 140	30
4,4' -DDT	ND	1.7	83	78	6.2	67	67	0.0	40 - 140	30
a-BHC	ND	1.0	77	72	6.7	60	63	4.9	40 - 140	30
a-Chlordane	ND	3.3	78	74	5.3	68	73	7.1	40 - 140	30
Aldrin	ND	1.0	81	76	6.4	65	64	1.6	40 - 140	30
b-BHC	ND	1.0	80	76	5.1	68	67	1.5	40 - 140	30
Chlordane	ND	33	80	76	5.1	65	66	1.5	40 - 140	30
d-BHC	ND	3.3	62	51	19.5	61	64	4.8	40 - 140	30
Dieldrin	ND	1.0	83	78	6.2	68	67	1.5	40 - 140	30
Endosulfan I	ND	3.3	85	78	8.6	69	69	0.0	40 - 140	30
Endosulfan II	ND	3.3	88	80	9.5	71	72	1.4	40 - 140	30
Endosulfan sulfate	ND	3.3	80	76	5.1	62	63	1.6	40 - 140	30
Endrin	ND	3.3	84	79	6.1	69	70	1.4	40 - 140	30
Endrin aldehyde	ND	3.3	78	72	8.0	53	54	1.9	40 - 140	30
Endrin ketone	ND	3.3	85	80	6.1	69	69	0.0	40 - 140	30

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
g-BHC	ND	1.0	77	72	6.7	62	63	1.6	40 - 140	30	
g-Chlordane	ND	3.3	80	76	5.1	65	66	1.5	40 - 140	30	
Heptachlor	ND	3.3	80	76	5.1	65	64	1.6	40 - 140	30	
Heptachlor epoxide	ND	3.3	82	80	2.5	70	68	2.9	40 - 140	30	
Methoxychlor	ND	3.3	87	83	4.7	71	72	1.4	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	72	%	84	78	7.4	68	69	1.5	30 - 150	30	
% DCBP (Confirmation)	82	%	96	90	6.5	74	70	5.6	30 - 150	30	
% TCMX	57	%	70	66	5.9	55	55	0.0	30 - 150	30	
% TCMX (Confirmation)	69	%	68	75	9.8	58	56	3.5	30 - 150	30	
QA/QC Batch 695358 (ug/L), QC Sample No: CO85727 10X (CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)											
Pesticides											
4,4' -DDD	ND	0.25	98	103	5.0	106			40 - 140	20	
4,4' -DDE	ND	0.25	93	100	7.3	99			40 - 140	20	
4,4' -DDT	ND	0.25	82	98	17.8	96			40 - 140	20	
a-BHC	ND	0.15	94	99	5.2	101			40 - 140	20	
Alachlor	ND	0.50	NA	NA	NC	NA			40 - 140	20	
Aldrin	ND	0.15	96	99	3.1	100			40 - 140	20	
b-BHC	ND	0.15	99	108	8.7	106			40 - 140	20	
Chlordane	ND	5.0	95	107	11.9	107			40 - 140	20	
d-BHC	ND	0.50	65	81	21.9	82			40 - 140	20	r
Dieldrin	ND	0.15	103	111	7.5	111			40 - 140	20	
Endosulfan I	ND	0.50	90	102	12.5	99			40 - 140	20	
Endosulfan II	ND	0.50	91	103	12.4	100			40 - 140	20	
Endosulfan sulfate	ND	0.50	71	81	13.2	79			40 - 140	20	
Endrin	ND	0.50	101	110	8.5	108			40 - 140	20	
Endrin aldehyde	ND	0.50	89	99	10.6	97			40 - 140	20	
g-BHC	ND	0.15	98	103	5.0	103			40 - 140	20	
Heptachlor	ND	0.50	97	99	2.0	101			40 - 140	20	
Heptachlor epoxide	ND	0.50	79	83	4.9	83			40 - 140	20	
Methoxychlor	ND	0.50	101	108	6.7	100			40 - 140	20	
Toxaphene	ND	20	NA	NA	NC	NA			40 - 140	20	
% DCBP	88	%	80	90	11.8	88			30 - 150	20	
% DCBP (Confirmation)	65	%	68	73	7.1	70			30 - 150	20	
% TCMX	75	%	84	85	1.2	91			30 - 150	20	
% TCMX (Confirmation)	71	%	80	84	4.9	83			30 - 150	20	
QA/QC Batch 695101 (ug/kg), QC Sample No: CO84975 (CO85850, CO85851)											
Semivolatiles - Soil											
1,1-Biphenyl	ND	230	71	72	1.4	69	67	2.9	40 - 140	30	
1,2,4,5-Tetrachlorobenzene	ND	230	71	73	2.8	71	67	5.8	40 - 140	30	
2,2'-Oxybis(1-Chloropropane)	ND	230	64	66	3.1	64	60	6.5	40 - 140	30	
2,3,4,6-tetrachlorophenol	ND	230	87	84	3.5	82	79	3.7	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	86	85	1.2	81	79	2.5	40 - 140	30	
2,4,6-Trichlorophenol	ND	130	87	86	1.2	82	81	1.2	30 - 130	30	
2,4-Dichlorophenol	ND	130	82	82	0.0	79	75	5.2	30 - 130	30	
2,4-Dimethylphenol	ND	230	82	81	1.2	71	70	1.4	30 - 130	30	
2,4-Dinitrophenol	ND	230	97	94	3.1	79	76	3.9	30 - 130	30	
2,4-Dinitrotoluene	ND	130	90	89	1.1	87	82	5.9	30 - 130	30	
2,6-Dinitrotoluene	ND	130	86	85	1.2	84	79	6.1	40 - 140	30	
2-Chloronaphthalene	ND	230	78	78	0.0	74	72	2.7	40 - 140	30	
2-Chlorophenol	ND	230	76	75	1.3	75	71	5.5	30 - 130	30	

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylnaphthalene	ND	230	75	78	3.9	76	69	9.7	40 - 140	30	
2-Methylphenol (o-cresol)	ND	230	76	74	2.7	73	68	7.1	40 - 140	30	
2-Nitroaniline	ND	330	117	120	2.5	118	112	5.2	40 - 140	30	
2-Nitrophenol	ND	230	80	81	1.2	79	76	3.9	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	84	83	1.2	82	75	8.9	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	28	59	71.3	38	27	33.8	40 - 140	30	l,m,r
3-Nitroaniline	ND	330	71	78	9.4	69	63	9.1	40 - 140	30	
4,6-Dinitro-2-methylphenol	ND	230	89	87	2.3	80	76	5.1	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	82	80	2.5	79	75	5.2	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	84	84	0.0	83	76	8.8	30 - 130	30	
4-Chloroaniline	ND	230	57	68	17.6	33	25	27.6	40 - 140	30	m
4-Chlorophenyl phenyl ether	ND	230	80	81	1.2	79	73	7.9	40 - 140	30	
4-Nitroaniline	ND	230	82	81	1.2	79	76	3.9	40 - 140	30	
4-Nitrophenol	ND	230	97	98	1.0	90	87	3.4	30 - 130	30	
Acenaphthene	ND	230	74	75	1.3	73	69	5.6	30 - 130	30	
Acenaphthylene	ND	130	70	71	1.4	75	66	12.8	40 - 140	30	
Acetophenone	ND	230	72	73	1.4	73	67	8.6	40 - 140	30	
Anthracene	ND	230	77	77	0.0	77	74	4.0	40 - 140	30	
Atrazine	ND	130	49	48	2.1	65	63	3.1	40 - 140	30	
Benz(a)anthracene	ND	230	76	75	1.3	82	74	10.3	40 - 140	30	
Benzaldehyde	ND	230	145	150	3.4	128	130	1.6	40 - 140	30	l
Benzo(a)pyrene	ND	130	102	88	14.7	96	80	18.2	40 - 140	30	
Benzo(b)fluoranthene	ND	160	102	84	19.4	96	75	24.6	40 - 140	30	
Benzo(ghi)perylene	ND	230	101	88	13.8	88	73	18.6	40 - 140	30	
Benzo(k)fluoranthene	ND	230	99	80	21.2	73	70	4.2	40 - 140	30	
Benzyl butyl phthalate	ND	230	90	88	2.2	86	85	1.2	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	74	78	5.3	73	70	4.2	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	70	72	2.8	69	66	4.4	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	91	89	2.2	88	86	2.3	40 - 140	30	
Caprolactam	ND	230	75	78	3.9	79	69	13.5	40 - 140	30	
Carbazole	ND	230	76	77	1.3	76	73	4.0	40 - 140	30	
Chrysene	ND	230	82	81	1.2	84	74	12.7	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	106	89	17.4	80	74	7.8	40 - 140	30	
Dibenzofuran	ND	230	77	78	1.3	75	71	5.5	40 - 140	30	
Diethyl phthalate	ND	230	81	82	1.2	78	74	5.3	40 - 140	30	
Dimethylphthalate	ND	230	81	80	1.2	79	75	5.2	40 - 140	30	
Di-n-butylphthalate	ND	670	86	85	1.2	81	78	3.8	40 - 140	30	
Di-n-octylphthalate	ND	230	94	93	1.1	92	86	6.7	40 - 140	30	
Fluoranthene	ND	230	78	78	0.0	81	79	2.5	40 - 140	30	
Fluorene	ND	230	79	80	1.3	79	74	6.5	40 - 140	30	
Hexachlorobenzene	ND	130	81	80	1.2	80	80	0.0	40 - 140	30	
Hexachlorobutadiene	ND	230	70	71	1.4	69	67	2.9	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	72	69	4.3	70	66	5.9	40 - 140	30	
Hexachloroethane	ND	130	64	64	0.0	65	62	4.7	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	105	89	16.5	90	75	18.2	40 - 140	30	
Isophorone	ND	130	68	70	2.9	66	63	4.7	40 - 140	30	
Naphthalene	ND	230	72	73	1.4	71	67	5.8	40 - 140	30	
Nitrobenzene	ND	130	73	72	1.4	73	68	7.1	40 - 140	30	
N-Nitrosodimethylamine	ND	230	49	67	31.0	62	61	1.6	40 - 140	30	r
N-Nitrosodi-n-propylamine	ND	130	73	74	1.4	74	68	8.5	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	65	69	6.0	72	64	11.8	40 - 140	30	
Pentachlorophenol	ND	230	98	95	3.1	85	85	0.0	30 - 130	30	
Phenanthrene	ND	130	77	76	1.3	81	75	7.7	40 - 140	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Phenol	ND	230	77	77	0.0	77	68	12.4	30 - 130	30	
Pyrene	ND	230	78	78	0.0	85	76	11.2	30 - 130	30	
% 2,4,6-Tribromophenol	89	%	85	84	1.2	77	76	1.3	30 - 130	30	
% 2-Fluorobiphenyl	74	%	72	72	0.0	68	66	3.0	30 - 130	30	
% 2-Fluorophenol	79	%	74	74	0.0	72	69	4.3	30 - 130	30	
% Nitrobenzene-d5	75	%	69	70	1.4	70	65	7.4	30 - 130	30	
% Phenol-d5	80	%	77	77	0.0	75	71	5.5	30 - 130	30	
% Terphenyl-d14	83	%	74	76	2.7	73	68	7.1	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 Batch 695129 (ug/L), QC Sample No: CO85479 (CO85850, CO85851)

Semivolatiles - TCLP

1,4-Dichlorobenzene	ND	17	82	67	20.1	73			40 - 140	20	
2,4,5-Trichlorophenol	ND	17	102	97	5.0	95			40 - 140	20	
2,4,6-Trichlorophenol	ND	17	104	97	7.0	97			30 - 130	20	
2,4-Dinitrotoluene	ND	58	105	99	5.9	95			30 - 130	20	
2-Methylphenol (o-cresol)	ND	17	94	80	16.1	83			40 - 140	20	
3&4-Methylphenol (m&p-cresol)	ND	17	85	75	12.5	75			30 - 130	20	
Hexachlorobenzene	ND	58	106	101	4.8	96			40 - 140	20	
Hexachlorobutadiene	ND	58	90	76	16.9	80			40 - 140	20	
Hexachloroethane	ND	58	84	68	21.1	74			40 - 140	20	r
Nitrobenzene	ND	58	97	82	16.8	86			40 - 140	20	
Pentachlorophenol	ND	58	122	113	7.7	111			30 - 130	20	
Pyridine	ND	83	86	75	13.7	20			40 - 140	20	m
% 2,4,6-Tribromophenol	109	%	111	104	6.5	101			15 - 110	20	l
% 2-Fluorobiphenyl	89	%	91	82	10.4	82			30 - 130	20	
% 2-Fluorophenol	76	%	77	63	20.0	67			15 - 110	20	
% Nitrobenzene-d5	85	%	89	77	14.5	78			30 - 130	20	
% Phenol-d5	68	%	71	60	16.8	64			15 - 110	20	
% Terphenyl-d14	104	%	103	98	5.0	94			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 695147 (ug/kg), QC Sample No: CO85853 (CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	70	67	4.4	73	70	4.2	40 - 140	30	
1,2,4,5-Tetrachlorobenzene	ND	230	70	70	0.0	73	69	5.6	40 - 140	30	
2,2'-Oxybis(1-Chloropropane)	ND	230	64	62	3.2	71	66	7.3	40 - 140	30	
2,3,4,6-tetrachlorophenol	ND	230	87	86	1.2	84	79	6.1	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	89	88	1.1	86	85	1.2	40 - 140	30	
2,4,6-Trichlorophenol	ND	130	99	97	2.0	99	96	3.1	30 - 130	30	
2,4-Dichlorophenol	ND	130	90	86	4.5	88	88	0.0	30 - 130	30	
2,4-Dimethylphenol	ND	230	87	83	4.7	84	74	12.7	30 - 130	30	
2,4-Dinitrophenol	ND	230	92	89	3.3	94	90	4.3	30 - 130	30	
2,4-Dinitrotoluene	ND	130	88	88	0.0	87	84	3.5	30 - 130	30	
2,6-Dinitrotoluene	ND	130	87	87	0.0	86	83	3.6	40 - 140	30	
2-Chloronaphthalene	ND	230	72	69	4.3	75	72	4.1	40 - 140	30	
2-Chlorophenol	ND	230	78	74	5.3	79	75	5.2	30 - 130	30	
2-Methylnaphthalene	ND	230	75	73	2.7	76	74	2.7	40 - 140	30	
2-Methylphenol (o-cresol)	ND	230	87	81	7.1	83	76	8.8	40 - 140	30	

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Nitroaniline	ND	330	126	125	0.8	114	107	6.3	40 - 140	30	
2-Nitrophenol	ND	230	75	73	2.7	82	79	3.7	40 - 140	30	
3&4-Methylphenol (m&p-cresol)	ND	230	94	89	5.5	90	83	8.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	120	122	1.7	103	101	2.0	40 - 140	30	
3-Nitroaniline	ND	330	107	106	0.9	97	91	6.4	40 - 140	30	
4,6-Dinitro-2-methylphenol	ND	230	106	102	3.8	102	95	7.1	30 - 130	30	
4-Bromophenyl phenyl ether	ND	230	80	80	0.0	82	79	3.7	40 - 140	30	
4-Chloro-3-methylphenol	ND	230	92	89	3.3	87	84	3.5	30 - 130	30	
4-Chloroaniline	ND	230	86	82	4.8	72	67	7.2	40 - 140	30	
4-Chlorophenyl phenyl ether	ND	230	80	78	2.5	80	78	2.5	40 - 140	30	
4-Nitroaniline	ND	230	86	83	3.6	84	81	3.6	40 - 140	30	
4-Nitrophenol	ND	230	145	138	4.9	141	145	2.8	30 - 130	30	l,m
Acenaphthene	ND	230	75	78	3.9	78	76	2.6	30 - 130	30	
Acenaphthylene	ND	130	71	70	1.4	74	70	5.6	40 - 140	30	
Acetophenone	ND	230	68	64	6.1	69	65	6.0	40 - 140	30	
Anthracene	ND	230	75	75	0.0	88	78	12.0	40 - 140	30	
Atrazine	ND	130	77	76	1.3	75	72	4.1	40 - 140	30	
Benz(a)anthracene	ND	230	75	76	1.3	131	91	36.0	40 - 140	30	r
Benzaldehyde	ND	230	116	115	0.9	116	108	7.1	40 - 140	30	
Benzo(a)pyrene	ND	130	88	89	1.1	126	96	27.0	40 - 140	30	
Benzo(b)fluoranthene	ND	160	83	85	2.4	135	97	32.8	40 - 140	30	r
Benzo(ghi)perylene	ND	230	84	86	2.4	89	78	13.2	40 - 140	30	
Benzo(k)fluoranthene	ND	230	67	67	0.0	81	70	14.6	40 - 140	30	
Benzyl butyl phthalate	ND	230	88	88	0.0	84	81	3.6	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	75	73	2.7	76	74	2.7	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	70	67	4.4	77	72	6.7	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	90	90	0.0	93	89	4.4	40 - 140	30	
Caprolactam	ND	230	110	111	0.9	100	97	3.0	40 - 140	30	
Carbazole	ND	230	81	79	2.5	82	79	3.7	40 - 140	30	
Chrysene	ND	230	85	85	0.0	156	105	39.1	40 - 140	30	m,r
Dibenz(a,h)anthracene	ND	130	81	83	2.4	75	69	8.3	40 - 140	30	
Dibenzofuran	ND	230	75	74	1.3	77	74	4.0	40 - 140	30	
Diethyl phthalate	ND	230	87	88	1.1	86	82	4.8	40 - 140	30	
Dimethylphthalate	ND	230	87	85	2.3	83	81	2.4	40 - 140	30	
Di-n-butylphthalate	ND	670	84	86	2.4	77	79	2.6	40 - 140	30	
Di-n-octylphthalate	ND	230	90	91	1.1	89	85	4.6	40 - 140	30	
Fluoranthene	ND	230	76	77	1.3	148	97	41.6	40 - 140	30	m,r
Fluorene	ND	230	77	77	0.0	79	77	2.6	40 - 140	30	
Hexachlorobenzene	ND	130	74	74	0.0	77	74	4.0	40 - 140	30	
Hexachlorobutadiene	ND	230	64	62	3.2	75	73	2.7	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	59	46	24.8	69	66	4.4	40 - 140	30	
Hexachloroethane	ND	130	59	57	3.4	72	67	7.2	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	93	95	2.1	101	85	17.2	40 - 140	30	
Isophorone	ND	130	73	70	4.2	72	70	2.8	40 - 140	30	
Naphthalene	ND	230	64	63	1.6	69	67	2.9	40 - 140	30	
Nitrobenzene	ND	130	73	68	7.1	74	70	5.6	40 - 140	30	
N-Nitrosodimethylamine	ND	230	84	82	2.4	88	83	5.8	40 - 140	30	
N-Nitrosodi-n-propylamine	ND	130	78	75	3.9	76	73	4.0	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	84	83	1.2	82	78	5.0	40 - 140	30	
Pentachlorophenol	ND	230	127	128	0.8	117	114	2.6	30 - 130	30	
Phenanthrene	ND	130	79	79	0.0	132	102	25.6	40 - 140	30	
Phenol	ND	230	81	78	3.8	76	72	5.4	30 - 130	30	
Pyrene	ND	230	71	72	1.4	135	94	35.8	30 - 130	30	m,r

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
% 2,4,6-Tribromophenol	102	%		90	88	2.2	91	87	4.5	30 - 130	30	
% 2-Fluorobiphenyl	78	%		67	66	1.5	71	68	4.3	30 - 130	30	
% 2-Fluorophenol	74	%		77	75	2.6	81	74	9.0	30 - 130	30	
% Nitrobenzene-d5	81	%		72	68	5.7	75	71	5.5	30 - 130	30	
% Phenol-d5	83	%		86	83	3.6	82	77	6.3	30 - 130	30	
% Terphenyl-d14	77	%		70	72	2.8	67	66	1.5	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 Batch 695649 (ug/L), QC Sample No: CO85853 (CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859)

Semivolatiles - TCLP

1,4-Dichlorobenzene	ND	17		49	52	5.9	54		40 - 140	20	
2,4,5-Trichlorophenol	ND	17		72	84	15.4	83		40 - 140	20	
2,4,6-Trichlorophenol	ND	17		70	84	18.2	85		30 - 130	20	
2,4-Dinitrotoluene	ND	58		77	86	11.0	92		30 - 130	20	
2-Methylphenol (o-cresol)	ND	17		65	73	11.6	73		40 - 140	20	
3&4-Methylphenol (m&p-cresol)	ND	17		64	70	9.0	70		30 - 130	20	
Hexachlorobenzene	ND	58		87	96	9.8	102		40 - 140	20	
Hexachlorobutadiene	ND	58		59	61	3.3	71		40 - 140	20	
Hexachloroethane	ND	58		52	54	3.8	56		40 - 140	20	
Nitrobenzene	ND	58		68	79	15.0	79		40 - 140	20	
Pentachlorophenol	ND	58		57	66	14.6	74		30 - 130	20	
Pyridine	ND	83		43	39	9.8	40		40 - 140	20	I
% 2,4,6-Tribromophenol	125	%		97	108	10.7	117		15 - 110	20	m,s
% 2-Fluorobiphenyl	81	%		63	58	8.3	65		30 - 130	20	
% 2-Fluorophenol	66	%		49	51	4.0	50		15 - 110	20	
% Nitrobenzene-d5	89	%		65	67	3.0	73		30 - 130	20	
% Phenol-d5	63	%		50	52	3.9	51		15 - 110	20	
% Terphenyl-d14	93	%		81	88	8.3	92		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 695075 (ug/kg), QC Sample No: CO85234 (CO85852)

Volatiles - Soil (Low Level)

1,1,1-Trichloroethane	ND	5.0		93	108	14.9			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0		85	96	12.2			70 - 130	30	
1,1,2-Trichloroethane	ND	5.0		82	95	14.7			70 - 130	30	
1,1-Dichloroethane	ND	5.0		91	105	14.3			70 - 130	30	
1,1-Dichloroethene	ND	5.0		89	102	13.6			70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0		83	95	13.5			70 - 130	30	
1,2,3-Trichloropropane	ND	5.0		101	119	16.4			70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0		83	94	12.4			70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0		89	103	14.6			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0		73	85	15.2			70 - 130	30	
1,2-Dibromoethane	ND	5.0		82	96	15.7			70 - 130	30	
1,2-Dichlorobenzene	ND	5.0		84	97	14.4			70 - 130	30	
1,2-Dichloroethane	ND	5.0		90	104	14.4			70 - 130	30	
1,2-Dichloropropane	ND	5.0		86	101	16.0			70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0		90	102	12.5			70 - 130	30	
1,3-Dichlorobenzene	ND	5.0		85	98	14.2			70 - 130	30	
1,3-Dichloropropane	ND	5.0		86	99	14.1			70 - 130	30	

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,4-Dichlorobenzene	ND	5.0	84	97	14.4				70 - 130	30
1,4-dioxane	ND	100	99	108	8.7				70 - 130	30
2-Hexanone	ND	25	79	91	14.1				70 - 130	30
4-Methyl-2-pentanone	ND	25	82	94	13.6				70 - 130	30
Acetone	ND	10	72	81	11.8				70 - 130	30
Benzene	ND	1.0	85	99	15.2				70 - 130	30
Bromochloromethane	ND	5.0	83	97	15.6				70 - 130	30
Bromodichloromethane	ND	5.0	89	104	15.5				70 - 130	30
Bromoform	ND	5.0	83	97	15.6				70 - 130	30
Bromomethane	ND	5.0	89	102	13.6				70 - 130	30
Carbon Disulfide	ND	5.0	97	112	14.4				70 - 130	30
Carbon tetrachloride	ND	5.0	92	108	16.0				70 - 130	30
Chlorobenzene	ND	5.0	85	98	14.2				70 - 130	30
Chloroethane	ND	5.0	89	104	15.5				70 - 130	30
Chloroform	ND	5.0	91	105	14.3				70 - 130	30
Chloromethane	ND	5.0	91	104	13.3				70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	87	101	14.9				70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	88	103	15.7				70 - 130	30
Cyclohexane	ND	5.0	93	105	12.1				70 - 130	30
Dibromochloromethane	ND	3.0	89	104	15.5				70 - 130	30
Dichlorodifluoromethane	ND	5.0	88	98	10.8				70 - 130	30
Ethylbenzene	ND	1.0	84	97	14.4				70 - 130	30
Isopropylbenzene	ND	1.0	88	102	14.7				70 - 130	30
m&p-Xylene	ND	2.0	85	98	14.2				70 - 130	30
Methyl ethyl ketone	ND	5.0	79	87	9.6				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	86	100	15.1				70 - 130	30
Methylacetate	ND	5.0	92	103	11.3				70 - 130	30
Methylcyclohexane	ND	5.0	94	106	12.0				70 - 130	30
Methylene chloride	ND	5.0	82	95	14.7				70 - 130	30
n-Butylbenzene	ND	1.0	90	102	12.5				70 - 130	30
n-Propylbenzene	ND	1.0	88	100	12.8				70 - 130	30
o-Xylene	ND	2.0	87	101	14.9				70 - 130	30
p-Isopropyltoluene	ND	1.0	89	101	12.6				70 - 130	30
sec-Butylbenzene	ND	1.0	89	101	12.6				70 - 130	30
Styrene	ND	5.0	83	96	14.5				70 - 130	30
tert-Butylbenzene	ND	1.0	88	101	13.8				70 - 130	30
Tetrachloroethene	ND	5.0	83	94	12.4				70 - 130	30
Toluene	ND	1.0	83	96	14.5				70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	90	103	13.5				70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	89	103	14.6				70 - 130	30
Trichloroethene	ND	5.0	84	97	14.4				70 - 130	30
Trichlorofluoromethane	ND	5.0	101	114	12.1				70 - 130	30
Trichlorotrifluoroethane	ND	5.0	96	112	15.4				70 - 130	30
Vinyl chloride	ND	5.0	91	104	13.3				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	97	98	1.0				70 - 130	30
% Bromofluorobenzene	96	%	99	100	1.0				70 - 130	30
% Dibromofluoromethane	97	%	99	98	1.0				70 - 130	30
% Toluene-d8	96	%	99	99	0.0				70 - 130	30

Comment:

The Low Level MS/MSD are not reported for this batch.

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 Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 694820 (ug/kg), QC Sample No: CO85776 (CO85850, CO85851, CO85853, CO85854, CO85855, CO85857, CO85858, CO85859)											
Volatiles - Soil (Low Level)											
1,1,1-Trichloroethane	ND	5.0	112	109	2.7	108	106	1.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	103	103	0.0	103	98	5.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	97	1.0	94	91	3.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	110	109	0.9	105	105	0.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	108	105	2.8	101	100	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	99	99	0.0	71	66	7.3	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	151	124	19.6	100	96	4.1	70 - 130	30	l
1,2,4-Trichlorobenzene	ND	5.0	99	99	0.0	72	69	4.3	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	110	109	0.9	102	104	1.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	96	97	1.0	84	78	7.4	70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	100	1.0	95	90	5.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	103	101	2.0	91	90	1.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	107	105	1.9	104	100	3.9	70 - 130	30	
1,2-Dichloropropane	ND	5.0	106	104	1.9	100	99	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	111	110	0.9	103	106	2.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	105	103	1.9	91	92	1.1	70 - 130	30	
1,3-Dichloropropane	ND	5.0	103	102	1.0	98	95	3.1	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	104	102	1.9	90	91	1.1	70 - 130	30	
1,4-dioxane	ND	100	125	127	1.6	111	115	3.5	70 - 130	30	
2-Hexanone	ND	25	101	103	2.0	86	80	7.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	101	104	2.9	96	89	7.6	70 - 130	30	
Acetone	ND	10	90	89	1.1	61	70	13.7	70 - 130	30	m
Benzene	ND	1.0	105	103	1.9	98	97	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	97	97	0.0	97	94	3.1	70 - 130	30	
Bromodichloromethane	ND	5.0	109	107	1.9	102	101	1.0	70 - 130	30	
Bromoform	ND	5.0	105	103	1.9	95	89	6.5	70 - 130	30	
Bromomethane	ND	5.0	109	104	4.7	106	102	3.8	70 - 130	30	
Carbon Disulfide	ND	5.0	120	117	2.5	108	106	1.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	114	111	2.7	108	107	0.9	70 - 130	30	
Chlorobenzene	ND	5.0	105	103	1.9	95	95	0.0	70 - 130	30	
Chloroethane	ND	5.0	109	106	2.8	103	101	2.0	70 - 130	30	
Chloroform	ND	5.0	108	105	2.8	105	103	1.9	70 - 130	30	
Chloromethane	ND	5.0	113	111	1.8	104	103	1.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	104	102	1.9	100	99	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	106	106	0.0	98	96	2.1	70 - 130	30	
Cyclohexane	ND	5.0	112	111	0.9	105	103	1.9	70 - 130	30	
Dibromochloromethane	ND	3.0	109	106	2.8	101	101	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	109	107	1.9	102	99	3.0	70 - 130	30	
Ethylbenzene	ND	1.0	106	103	2.9	96	97	1.0	70 - 130	30	
Isopropylbenzene	ND	1.0	111	109	1.8	104	107	2.8	70 - 130	30	
m&p-Xylene	ND	2.0	105	104	1.0	96	96	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	97	97	0.0	86	80	7.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	100	98	2.0	103	97	6.0	70 - 130	30	
Methylacetate	ND	5.0	111	112	0.9	119	108	9.7	70 - 130	30	
Methylcyclohexane	ND	5.0	117	115	1.7	107	106	0.9	70 - 130	30	
Methylene chloride	ND	5.0	99	95	4.1	96	92	4.3	70 - 130	30	
n-Butylbenzene	ND	1.0	111	109	1.8	97	99	2.0	70 - 130	30	
n-Propylbenzene	ND	1.0	109	107	1.9	100	103	3.0	70 - 130	30	
o-Xylene	ND	2.0	107	107	0.0	99	99	0.0	70 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
p-Isopropyltoluene	ND	1.0	111	109	1.8	100	103	3.0	70 - 130	30	
sec-Butylbenzene	ND	1.0	112	111	0.9	102	105	2.9	70 - 130	30	
Styrene	ND	5.0	102	101	1.0	91	90	1.1	70 - 130	30	
tert-Butylbenzene	ND	1.0	111	109	1.8	102	105	2.9	70 - 130	30	
Tetrachloroethene	ND	5.0	101	101	0.0	92	93	1.1	70 - 130	30	
Toluene	ND	1.0	101	101	0.0	93	93	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	107	106	0.9	102	100	2.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	107	105	1.9	97	93	4.2	70 - 130	30	
Trichloroethene	ND	5.0	103	104	1.0	93	93	0.0	70 - 130	30	
Trichlorofluoromethane	ND	5.0	121	118	2.5	116	113	2.6	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	119	114	4.3	113	110	2.7	70 - 130	30	
Vinyl chloride	ND	5.0	113	109	3.6	105	102	2.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	97	97	0.0	96	96	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	99	98	1.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	96	%	93	94	1.1	97	98	1.0	70 - 130	30	
% Toluene-d8	96	%	98	99	1.0	98	99	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 695077 (ug/L), QC Sample No: CO85853 (CO85850 (10X) , CO85851 (10X) , CO85852 (10X) , CO85853 (10X) , CO85854 (10X) , CO85855 (10X) , CO85856 (10X) , CO85857 (10X) , CO85858 (10X) , CO85859 (10X))

Volatiles - TCLP

1,1-Dichloroethene	ND	5.0	103	107	3.8	116	88	27.5	70 - 130	30	
1,2-Dichloroethane	ND	0.60	107	108	0.9	121	97	22.0	70 - 130	30	
Benzene	ND	0.70	92	93	1.1	104	81	24.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	119	122	2.5	116	86	29.7	70 - 130	30	
Chlorobenzene	ND	1.0	99	100	1.0	111	83	28.9	70 - 130	30	
Chloroform	ND	5.0	97	102	5.0	113	88	24.9	70 - 130	30	
Methyl ethyl ketone	ND	5.0	81	80	1.2	90	70	25.0	70 - 130	30	
Tetrachloroethene	ND	1.0	108	112	3.6	126	86	37.7	70 - 130	30	r
Trichloroethene	ND	5.0	104	107	2.8	120	89	29.7	70 - 130	30	
Vinyl chloride	ND	5.0	97	101	4.0	109	85	24.7	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	101	100	1.0	70 - 130	30	
% Bromofluorobenzene	95	%	101	100	1.0	103	102	1.0	70 - 130	30	
% Dibromofluoromethane	98	%	95	99	4.1	98	97	1.0	70 - 130	30	
% Toluene-d8	94	%	97	97	0.0	97	97	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.

QA/QC Batch 695281 (ug/kg), QC Sample No: CO87632 (CO85856)

Volatiles - Soil (Low Level)

1,1,1-Trichloroethane	ND	5.0	106	106	0.0	107	107	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	94	95	1.1	106	107	0.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	97	97	0.0	92	91	1.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	101	100	1.0	128	126	1.6	70 - 130	30	
1,1-Dichloroethene	ND	5.0	101	101	0.0	95	94	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	88	91	3.4	50	49	2.0	70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	87	89	2.3	103	103	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	85	88	3.5	49	50	2.0	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	93	94	1.1	93	95	2.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	97	96	1.0	94	94	0.0	70 - 130	30	
1,2-Dibromoethane	ND	5.0	95	96	1.0	80	81	1.2	70 - 130	30	

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dichlorobenzene	ND	5.0	94	96	2.1	80	83	3.7	70 - 130	30
1,2-Dichloroethane	ND	5.0	97	98	1.0	88	88	0.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	101	100	1.0	100	98	2.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	93	94	1.1	100	101	1.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	90	92	2.2	74	77	4.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	94	94	0.0	89	90	1.1	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	93	94	1.1	71	75	5.5	70 - 130	30
1,4-dioxane	ND	100	97	108	10.7	107	130	19.4	70 - 130	30
2-Hexanone	ND	25	85	85	0.0	75	75	0.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	96	96	0.0	91	90	1.1	70 - 130	30
Acetone	ND	10	85	85	0.0	83	78	6.2	70 - 130	30
Benzene	ND	1.0	96	96	0.0	94	94	0.0	70 - 130	30
Bromochloromethane	ND	5.0	97	99	2.0	87	87	0.0	70 - 130	30
Bromodichloromethane	ND	5.0	104	105	1.0	95	96	1.0	70 - 130	30
Bromoform	ND	5.0	106	107	0.9	87	89	2.3	70 - 130	30
Bromomethane	ND	5.0	99	96	3.1	101	94	7.2	70 - 130	30
Carbon Disulfide	ND	5.0	104	102	1.9	88	88	0.0	70 - 130	30
Carbon tetrachloride	ND	5.0	111	112	0.9	105	109	3.7	70 - 130	30
Chlorobenzene	ND	5.0	96	97	1.0	84	86	2.4	70 - 130	30
Chloroethane	ND	5.0	101	99	2.0	94	93	1.1	70 - 130	30
Chloroform	ND	5.0	96	95	1.0	94	94	0.0	70 - 130	30
Chloromethane	ND	5.0	98	97	1.0	101	99	2.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	98	94	4.2	83	87	4.7	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	107	108	0.9	81	84	3.6	70 - 130	30
Cyclohexane	ND	5.0	95	97	2.1	100	99	1.0	70 - 130	30
Dibromochloromethane	ND	3.0	108	108	0.0	93	96	3.2	70 - 130	30
Dichlorodifluoromethane	ND	5.0	80	81	1.2	98	94	4.2	70 - 130	30
Ethylbenzene	ND	1.0	93	94	1.1	89	90	1.1	70 - 130	30
Isopropylbenzene	ND	1.0	94	96	2.1	109	109	0.0	70 - 130	30
m&p-Xylene	ND	2.0	91	93	2.2	85	87	2.3	70 - 130	30
Methyl ethyl ketone	ND	5.0	87	82	5.9	87	82	5.9	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	99	98	1.0	98	97	1.0	70 - 130	30
Methylacetate	ND	5.0	102	99	3.0	118	112	5.2	70 - 130	30
Methylcyclohexane	ND	5.0	97	98	1.0	93	93	0.0	70 - 130	30
Methylene chloride	ND	5.0	98	96	2.1	89	90	1.1	70 - 130	30
n-Butylbenzene	ND	1.0	91	94	3.2	77	81	5.1	70 - 130	30
n-Propylbenzene	ND	1.0	94	95	1.1	100	102	2.0	70 - 130	30
o-Xylene	ND	2.0	96	98	2.1	93	94	1.1	70 - 130	30
p-Isopropyltoluene	ND	1.0	92	93	1.1	92	94	2.2	70 - 130	30
sec-Butylbenzene	ND	1.0	92	94	2.2	96	98	2.1	70 - 130	30
Styrene	ND	5.0	91	93	2.2	73	76	4.0	70 - 130	30
tert-Butylbenzene	ND	1.0	94	96	2.1	104	107	2.8	70 - 130	30
Tetrachloroethene	ND	5.0	97	97	0.0	92	91	1.1	70 - 130	30
Toluene	ND	1.0	97	97	0.0	88	91	3.4	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	102	101	1.0	85	83	2.4	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	111	112	0.9	70	73	4.2	70 - 130	30
Trichloroethene	ND	5.0	97	99	2.0	87	88	1.1	70 - 130	30
Trichlorofluoromethane	ND	5.0	103	104	1.0	105	104	1.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	111	109	1.8	115	113	1.8	70 - 130	30
Vinyl chloride	ND	5.0	100	98	2.0	99	97	2.0	70 - 130	30
% 1,2-dichlorobenzene-d4	95	%	102	102	0.0	103	104	1.0	70 - 130	30
% Bromofluorobenzene	99	%	99	100	1.0	93	94	1.1	70 - 130	30
% Dibromofluoromethane	97	%	101	102	1.0	101	99	2.0	70 - 130	30

QA/QC Data

SDG I.D.: GCO85850

Parameter	Blank	Blk RL		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Toluene-d8	92	%		100	101	1.0	99	99	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.
s = This parameter is outside laboratory Blank Surrogate specified recovery 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
September 19, 2023

Tuesday, September 19, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO85850 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO85850	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1700	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	870	260	500	500	ug/Kg
CO85850	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1600	260	1000	1000	ug/Kg
CO85850	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	870	260	500	500	ug/Kg
CO85850	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	9.6	2.3	3.3	3.3	ug/Kg
CO85850	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	17	2.3	3.3	3.3	ug/Kg
CO85850	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	143	0.7	50	50	mg/kg
CO85850	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.49	0.03	0.18	0.18	mg/Kg
CO85850	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	30.8	0.36	30	30	mg/Kg
CO85850	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	289	3.6	63	63	mg/Kg
CO85850	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	488	7.3	109	109	mg/Kg
CO85851	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	2000	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	2300	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1900	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	2000	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1300	310	500	500	ug/Kg
CO85851	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1300	310	500	500	ug/Kg
CO85851	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1900	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2000	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1900	310	1000	1000	ug/Kg
CO85851	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2300	310	1000	1000	ug/Kg
CO85851	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	156	0.9	50	50	mg/kg
CO85851	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	1.13	0.03	0.81	0.81	mg/Kg
CO85851	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.13	0.03	0.18	0.18	mg/Kg
CO85851	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	3640	42	1000	1000	mg/Kg
CO85851	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	3640	42	400	400	mg/Kg
CO85851	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	3640	42	63	63	mg/Kg
CO85851	TRI-CRSM	Trivalent Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	40.6	0.45	30	30	mg/kg
CO85851	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	126	0.9	109	109	mg/Kg
CO85852	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1200	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1200	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1500	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	630	270	500	500	ug/Kg
CO85852	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	270	1000	1000	ug/Kg

Tuesday, September 19, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO85850 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO85852	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1500	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	270	1000	1000	ug/Kg
CO85852	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	630	270	500	500	ug/Kg
CO85852	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	13.4	0.79	13	13	mg/Kg
CO85852	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	105	0.8	50	50	mg/kg
CO85852	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	0.95	0.03	0.81	0.81	mg/Kg
CO85852	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.95	0.03	0.18	0.18	mg/Kg
CO85852	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	328	3.9	63	63	mg/Kg
CO85853	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	16.9	0.61	16	16	mg/Kg
CO85853	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential Restricted	16.9	0.61	16	16	mg/Kg
CO85853	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	16.9	0.61	13	13	mg/Kg
CO85854	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	70.5	0.7	50	50	mg/kg
CO85854	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	1.00	0.03	0.81	0.81	mg/Kg
CO85854	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.00	0.03	0.18	0.18	mg/Kg
CO85854	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	144	3.5	63	63	mg/Kg
CO85854	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	118	0.7	109	109	mg/Kg
CO85855	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	81.4	0.8	50	50	mg/kg
CO85855	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	1.02	0.03	0.81	0.81	mg/Kg
CO85855	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.02	0.03	0.18	0.18	mg/Kg
CO85855	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	835	3.9	400	400	mg/Kg
CO85855	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	835	3.9	63	63	mg/Kg
CO85855	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	144	0.8	109	109	mg/Kg
CO85856	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Commercial	26000	1300	5600	5600	ug/Kg
CO85856	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Commercial	14000	1300	5600	5600	ug/Kg
CO85856	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	26000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Commercial	31000	1300	5600	5600	ug/Kg
CO85856	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	3100	190	560	560	ug/Kg
CO85856	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	5300	270	3900	3900	ug/Kg
CO85856	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	3100	190	330	330	ug/Kg
CO85856	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	14000	1300	500	500	ug/Kg
CO85856	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Residential Restricted	23000	1300	3900	3900	ug/Kg
CO85856	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	31000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	26000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	26000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	14000	1300	500	500	ug/Kg
CO85856	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	5300	270	800	800	ug/Kg
CO85856	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	23000	1300	1000	1000	ug/Kg

Tuesday, September 19, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO85850 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO85856	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	26000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3100	190	330	330	ug/Kg
CO85856	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	31000	1300	1000	1000	ug/Kg
CO85856	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	26000	1300	1000	1000	ug/Kg
CO85856	$PESTSM_NY	Endrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	38	14	14	ug/Kg
CO85856	$PESTSM_NY	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	15	5	5	ug/Kg
CO85856	$PESTSM_NY	Aldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	15	5	5	ug/Kg
CO85856	$PESTSM_NY	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	15	3.3	3.3	ug/Kg
CO85856	$PESTSM_NY	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	15	3.3	3.3	ug/Kg
CO85856	$PESTSM_NY	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND	15	3.3	3.3	ug/Kg
CO85856	BA-SM	Barium	NY / 375-6.8 Metals / Commercial	1580	3.5	400	400	mg/Kg
CO85856	BA-SM	Barium	NY / 375-6.8 Metals / Residential Restricted	1580	3.5	400	400	mg/Kg
CO85856	BA-SM	Barium	NY / 375-6.8 Metals / Unrestricted Use Soil	1580	3.5	350	350	mg/Kg
CO85856	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	98.3	0.7	50	50	mg/kg
CO85856	HG-SM	Mercury	NY / 375-6.8 Metals / Commercial	6.90	0.31	2.8	2.8	mg/Kg
CO85856	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	6.90	0.31	0.81	0.81	mg/Kg
CO85856	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	6.90	0.31	0.18	0.18	mg/Kg
CO85856	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	3250	35	1000	1000	mg/Kg
CO85856	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	3250	35	400	400	mg/Kg
CO85856	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	3250	35	63	63	mg/Kg
CO85856	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	28.8	1.0	5	5	mg/L
CO85856	TRI-CRSM	Trivalent Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	40.9	0.35	30	30	mg/kg
CO85856	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	1100	6.9	109	109	mg/Kg
CO85857	$8270_TCLR	Dibenzofuran	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	52000	13000	7000	7000	ug/Kg
CO85857	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	220000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Fluoranthene	NY / 375-6.8 Semivolatiles / Commercial	640000	64000	500000	500000	ug/Kg
CO85857	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Commercial	180000	13000	56000	56000	ug/Kg
CO85857	$8270_TCLR	Phenanthrene	NY / 375-6.8 Semivolatiles / Commercial	600000	64000	500000	500000	ug/Kg
CO85857	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	36000	920	560	560	ug/Kg
CO85857	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Commercial	120000	13000	5600	5600	ug/Kg
CO85857	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Commercial	220000	13000	5600	5600	ug/Kg
CO85857	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Commercial	270000	13000	5600	5600	ug/Kg
CO85857	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	36000	920	330	330	ug/Kg
CO85857	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	34000	1300	3900	3900	ug/Kg
CO85857	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	120000	13000	500	500	ug/Kg
CO85857	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Residential Restricted	180000	13000	3900	3900	ug/Kg
CO85857	$8270_TCLR	Fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	640000	64000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Benzo(ghi)perylene	NY / 375-6.8 Semivolatiles / Residential Restricted	110000	13000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	270000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	220000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	490000	64000	100000	100000	ug/Kg

Tuesday, September 19, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO85850 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO85857	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	220000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	140000	13000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Phenanthrene	NY / 375-6.8 Semivolatiles / Residential Restricted	600000	64000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Naphthalene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	31000	1300	12000	12000	ug/Kg
CO85857	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	120000	13000	500	500	ug/Kg
CO85857	$8270_TCLR	Fluorene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	91000	13000	30000	30000	ug/Kg
CO85857	$8270_TCLR	Phenanthrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	600000	64000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	490000	64000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	36000	920	330	330	ug/Kg
CO85857	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	180000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	34000	1300	800	800	ug/Kg
CO85857	$8270_TCLR	Benzo(ghi)perylene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	110000	13000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	270000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	220000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	220000	13000	1000	1000	ug/Kg
CO85857	$8270_TCLR	Anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	140000	13000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Acenaphthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	41000	13000	20000	20000	ug/Kg
CO85857	$8270_TCLR	Fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	640000	64000	100000	100000	ug/Kg
CO85857	$8270_TCLR	Hexachlorobenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	370	330	330	ug/Kg
CO85857	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	96.6	0.7	50	50	mg/kg
CO85857	HG-SM	Mercury	NY / 375-6.8 Metals / Residential Restricted	0.92	0.03	0.81	0.81	mg/Kg
CO85857	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.92	0.03	0.18	0.18	mg/Kg
CO85857	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	2330	36	1000	1000	mg/Kg
CO85857	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	2330	36	400	400	mg/Kg
CO85857	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	2330	36	63	63	mg/Kg
CO85857	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	940	7.1	109	109	mg/Kg
CO85858	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Commercial	6200	270	5600	5600	ug/Kg
CO85858	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Commercial	18000	1300	5600	5600	ug/Kg
CO85858	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	15000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Commercial	15000	1300	5600	5600	ug/Kg
CO85858	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	1700	190	560	560	ug/Kg
CO85858	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	6200	270	500	500	ug/Kg
CO85858	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	15000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	18000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Residential Restricted	12000	1300	3900	3900	ug/Kg
CO85858	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1700	190	330	330	ug/Kg
CO85858	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	15000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	190	330	330	ug/Kg
CO85858	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	6200	270	500	500	ug/Kg
CO85858	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	18000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	15000	1300	1000	1000	ug/Kg

Tuesday, September 19, 2023

Criteria: NY: 375, 375COM, 375RRS

State: NY

Sample Criteria Exceedances Report

GCO85850 - AES-EASTSIDE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CO85858	$8270_TCLR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	15000	1300	1000	1000	ug/Kg
CO85858	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3700	270	800	800	ug/Kg
CO85858	$8270_TCLR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	12000	1300	1000	1000	ug/Kg
CO85858	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	80.9	0.8	50	50	mg/kg
CO85858	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.79	0.03	0.18	0.18	mg/Kg
CO85858	PB-SM	Lead	NY / 375-6.8 Metals / Residential Restricted	522	4.2	400	400	mg/Kg
CO85858	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	522	4.2	63	63	mg/Kg
CO85858	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	154	0.8	109	109	mg/Kg
CO85859	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	3800	1200	1000	1000	ug/Kg
CO85859	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	950	890	560	560	ug/Kg
CO85859	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	3800	1200	1000	1000	ug/Kg
CO85859	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	3800	1200	500	500	ug/Kg
CO85859	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	950	890	330	330	ug/Kg
CO85859	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	2700	1200	1000	1000	ug/Kg
CO85859	$8270_TCLR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	970	800	800	800	ug/Kg
CO85859	$8270_TCLR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2700	1200	1000	1000	ug/Kg
CO85859	$8270_TCLR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	950	890	330	330	ug/Kg
CO85859	$8270_TCLR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3800	1200	500	500	ug/Kg
CO85859	$8270_TCLR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3800	1200	1000	1000	ug/Kg
CO85859	$8270_TCLR	Hexachlorobenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	360	330	330	ug/Kg
CO85859	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	73.3	0.8	50	50	mg/kg
CO85859	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.22	0.03	0.18	0.18	mg/Kg
CO85859	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	162	3.8	63	63	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

September 19, 2023 SDG I.D.: GCO85850

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

ETPH Narration

AU-FID1 08/30/23-1: CO85854, CO85855

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85854
Preceding CC 830A003 - % COD (surr) 47%H (30%), % Terphenyl (surr) 43%H (30%)
Succeeding CC 830A015 - DRO (C10-C28) 37%L (30%)
Samples: CO85855
Preceding CC 830A015 - DRO (C10-C28) 37%L (30%)
Succeeding CC 830A029 - None.

The ETPH method allows for one discrimination check standard outlier.

Herbicide Narration

AU-ECD12 09/01/23-1: CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85857, CO85858, CO85859
Preceding CC 901B039 - 2,4-DB (12) 76%H (15%)
Succeeding CC 901B052 - 2,4-DB (12) 30%H (15%), Dinoseb 41%H (15%)
Samples: CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856
Preceding CC 901B027 - 2,4-DB (12) 33%H (15%), Dinoseb 29%H (15%)
Succeeding CC 901B039 - 2,4-DB (12) 76%H (15%)

AU-ECD2 08/31/23-1: CO85850, CO85851, CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85856, CO85857, CO85858, CO85859
Preceding CC 831B027 - 2,4-D (8) 17%H (15%)
Succeeding CC 831B033 - 2,4-D (8) 17%H (15%)
Samples: CO85850, CO85851, CO85852, CO85853, CO85854, CO85855
Preceding CC 831B015 - None.
Succeeding CC 831B027 - 2,4-D (8) 17%H (15%)

PCB Narration

AU-ECD48 09/03/23-1: CO85851, CO85857, CO85858

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85851, CO85857, CO85858
Preceding CC 903B017 - None.
Succeeding CC 903B031 - DCBP SURR 19%L (15%)

PEST Narration

AU-ECD33 09/05/23-1: CO85851, CO85852, CO85853, CO85854, CO85857, CO85858

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Analysis Comments

September 19, 2023 SDG I.D.: GCO85850

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85851
Preceding CC 905B030 - Endosulfan II 25%L (20%), Endosulfan sulfate 27%L (20%), Heptachlor epoxide 23%L (20%)
Succeeding CC 905B036 - Endosulfan I 22%L (20%), Endosulfan II 34%L (20%), Endosulfan sulfate 33%L (20%), Heptachlor epoxide 31%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.
Samples: CO85852, CO85853, CO85854, CO85857, CO85858
Preceding CC 905B004 - d-BHC 24%L (20%), Endosulfan I 25%L (20%)
Succeeding CC 905B030 - Endosulfan II 25%L (20%), Endosulfan sulfate 27%L (20%), Heptachlor epoxide 23%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-ECD4 09/05/23-1: CO85852, CO85853, CO85854, CO85855, CO85856, CO85859

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CO85852, CO85853, CO85854, CO85855, CO85856, CO85859
Preceding CC 905B004 - % DCBP 26%H (20%), Methoxychlor 21%H (20%)
Succeeding CC 905B030 - None.

SVOA Narration

CHEM07 08/31/23-1: CO85850, CO85851

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: 2-Nitrophenol 0.064 (0.1), Hexachlorobenzene 0.086 (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: 2-Nitrophenol 0.069 (0.1), Hexachlorobenzene 0.086 (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%.

CHEM19 08/31/23-1: CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859

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: 2-Nitrophenol 0.058 (0.1), Hexachlorobenzene 0.089 (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: 2-Nitrophenol 0.065 (0.1), Hexachlorobenzene 0.087 (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%.

CHEM22 08/31/23-1: CO85850, CO85851

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NY # 11301

Analysis Comments

September 19, 2023 SDG I.D.: GCO85850

The following Initial Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.077 (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 0.083 (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%.

CHEM36 09/06/23-1: CO85852, CO85853, CO85854, CO85855, CO85856, CO85857, CO85858, CO85859

The following Initial Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.082 (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 0.091 (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

CHEM03 08/29/23-1: CO85850, CO85851, CO85853, CO85854, CO85855, CO85857, CO85858, CO85859

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 24% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Tetrachloroethene 0.180 (0.2)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: 1,2,3-Trichloropropane 31%H (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation 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%.

CHEM03 08/30/23-1: CO85852

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 24% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Tetrachloroethene 0.180 (0.2)
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%.

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NY Temperature Narration

September 19, 2023

SDG I.D.: GCO85850

The samples in this delivery group were received at 1.7°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [x] No [ ]
Coolant: IPK [x] ICE [ ] No [ ]

PHOENIX Environmental Laboratories, Inc.

NY/NJ/PA CHAIN OF CUSTODY RECORD

Temp 1.7 C Pg 1 of 1

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: pendyenveng@optonline.net
[x] Email: empendergast@aol.com

Customer: AES
Address: 42 West Ave.
Patchogue, NY 11772

Project: Eastside Coastal Resiliency Project P.O: 0897
Report to: AES
Invoice to: AES
QUOTE # : AE09092IBA

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 8.28.23

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

Analysis Request

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+NYAdd	Full TCLP	RIC	Herbs	Tri+Hex Chromium	NJ EPH	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 [ ]1000ml	PL NAOH 250ml	PL HNO_3 250ml	Bacteria Bottle w/hio	Bacteria Bottle as is
85850	DMSP-1	S	8.28.23	9:00		X	X	X	X	X	X	X			2	1	3							
85851	DMSP-2	↓		9:15		↓	↓	↓	↓	↓	↓	↓			↓	↓	↓							
85852	DMSP-3	↓		9:30																				
	~~DUP-1~~ (2)																							
85853	FG-4	S		11:00																				
85854	FG-5			10:45																				
85855	FG-6			10:30																				
85856	FG-7			10:00																				
85857	FG-8			1:00																				
85858	FG-9			12:40																				
85859	FG-10	↓	↓	10:50		↓	↓	↓	↓	↓	↓	↓			↓	↓	↓							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	8.29.23	9.42
[signature]	[signature]	8.29.23	1700

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
[x] Excel [ ] NJ Hazsite EDD
[x] PDF [ ] NY EZ EDD (ASP)
[ ] GIS/Key [ ] Other

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[x] 3 Days*
[ ] 4 Days*
[ ] 5 Days*
[ ] Standard
* SURCHARGE APPLIES

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

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

NY
[ ] TOGS GW
[ ] CP-51 SOIL
[x] 375SCO Unrestricted Soil
[ ] 375SCO Residential Soil
[x] 375SCO Residential Restricted Soil
[x] 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: Thursday, September 14, 2023 11:13 AM
To: Sarah Bell
Subject: Re: ALL HERE

Hi Sarah

Can you check/re-run the total & TCLP lead on CO85851?
The total lead was rather low so we want to make sure it is hazardous.

Thanks,

Eileen
AES
42 West Avenue
Patchogue, NY 11772
(631) 475-0020

On Wednesday, September 13, 2023 at 04:04:43 PM EDT, Sarah Bell <sarah@phoenixlabs.com> wrote: