Attachment A

Highland Sediment Cores

Laboratory Results

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project CHPE Hudson/24711
Workorder 3264939
Report ID 203607 on 10/28/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 22, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3264939001	High 1A	Solid	09/21/2022 10:30	09/22/2022 08:52	CBC	Collected By Client
3264939002	High 1B	Solid	09/21/2022 10:35	09/22/2022 08:52	CBC	Collected By Client
3264939003	High 2A	Solid	09/21/2022 12:00	09/22/2022 08:52	CBC	Collected By Client
3264939004	High 2B	Solid	09/21/2022 12:05	09/22/2022 08:52	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3264939001	High 1A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264939002	High 1B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264939003	High 2A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264939004	High 2B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 10/28/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 41% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 32% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 58% in the bracketing CCV.
5	See attached subcontract PCB results from Alpha Analytical. SLW 10/07/2022

Detected Results Summary

Client Sample ID **High 1A** Collected **09/21/2022 10:30**
Lab Sample ID **3264939001** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.5	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	11.7	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	9.1	mg/kg	3.3	1.1	SW846 6010D	#
SEMIVOLATILES						
Benzo(a)pyrene	411	ug/kg	69.1	23.5	SW846 8270D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.7	%	0.1	0.01	S2540G-11	#
Total Solids	60.3	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 1B** Collected **09/21/2022 10:35**
Lab Sample ID **3264939002** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.0	mg/kg	3.2	1.1	SW846 6010D	#
Copper, Total	11.8	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	9.1	mg/kg	3.2	1.1	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.8	%	0.1	0.01	S2540G-11	#
Total Solids	59.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 2A** Collected **09/21/2022 12:00**
Lab Sample ID **3264939003** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.2	mg/kg	3.6	1.2	SW846 6010D	#
Copper, Total	13.2	mg/kg	3.6	1.2	SW846 6010D	#
Lead, Total	11.0	mg/kg	3.6	1.2	SW846 6010D	#
Mercury, Total	0.042J	mg/kg	0.090	0.029	SW846 7471B	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	45.9	%	0.1	0.01	S2540G-11	#
Total Solids	54.1	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 2B** Collected **09/21/2022 12:05**
Lab Sample ID **3264939004** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.8	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	12.3	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	10.1	mg/kg	3.3	1.1	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	41.1	%	0.1	0.01	S2540G-11	#
Total Solids	58.9	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	**High 1A**	Collected	**09/21/2022 10:30**
Lab Sample ID	**3264939001**	Lab Receipt	**09/22/2022 08:52**

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.5	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:46	A1S	E1
Cadmium, Total	ND	ND,S1	mg/kg	0.82	0.27	SW846 6010D	1	10/18/2022 14:46	A1S	E1
Copper, Total	11.7	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:46	A1S	E1
Lead, Total	9.1	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:46	A1S	E1
Mercury, Total	ND	ND,S1	mg/kg	0.081	0.026	SW846 7471B	1	09/28/2022 13:59	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1	ug/kg	13.8	8.9	SW846 8081B	5	09/28/2022 18:59	KJH	E
4,4'-DDE	ND	ND,3,S1	ug/kg	13.8	4.5	SW846 8081B	5	09/28/2022 18:59	KJH	E
4,4'-DDT	ND	ND,4,S1	ug/kg	13.8	4.0	SW846 8081B	5	09/28/2022 18:59	KJH	E
Chlordane	ND	ND,S1	ug/kg	284	47.9	SW846 8081B	5	09/28/2022 18:59	KJH	E
Dieldrin	ND	ND,S1	ug/kg	13.8	5.4	SW846 8081B	5	09/28/2022 18:59	KJH	E
Mirex	ND	ND,S1	ug/kg	13.8	4.3	SW846 8081B	5	09/28/2022 18:59	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	44.9%	30 – 135	09/28/2022 18:59	
Tetrachloro-m-xylene	877-09-8	48.6%	30 – 111	09/28/2022 18:59	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Acenaphthylene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Anthracene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Benzo(a)anthracene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Benzo(a)pyrene	411	S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Benzo(b)fluoranthene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Benzo(g,h,i)perylene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Benzo(k)fluoranthene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Chrysene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Fluoranthene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Fluorene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Naphthalene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Phenanthrene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E
Pyrene	ND	ND,S1	ug/kg	69.1	23.5	SW846 8270D	1	09/26/2022 11:25	S7M	E

Results

Client Sample ID	**High 1A**	Collected	**09/21/2022 10:30**
Lab Sample ID	**3264939001**	Lab Receipt	**09/22/2022 08:52**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	78%	19 – 132	09/26/2022 11:25	
2-Fluorobiphenyl	321-60-8	69.2%	40 – 110	09/26/2022 11:25	
2-Fluorophenol	367-12-4	66.5%	26 – 116	09/26/2022 11:25	
Nitrobenzene-d5	4165-60-0	67.8%	38 – 112	09/26/2022 11:25	
Phenol-d5	4165-62-2	69.4%	35 – 111	09/26/2022 11:25	
Terphenyl-d14	98904-43-9	77.9%	45 – 126	09/26/2022 11:25	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S1				Subcontract	1	10/07/2022 15:16	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	10/28/2022 13:59	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	4.6	1.1	SW846 8260C	1	09/26/2022 14:10	TMP	B
Ethylbenzene	ND	ND,S1	ug/kg	4.6	1.6	SW846 8260C	1	09/26/2022 14:10	TMP	B
Toluene	ND	ND,S1	ug/kg	4.6	1.5	SW846 8260C	1	09/26/2022 14:10	TMP	B
Total Xylenes	ND	ND,S1	ug/kg	13.7	3.2	SW846 8260C	1	09/26/2022 14:10	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.8%	56 – 124	09/26/2022 14:10	
4-Bromofluorobenzene	460-00-4	99.2%	51 – 128	09/26/2022 14:10	
Dibromofluoromethane	1868-53-7	104%	62 – 123	09/26/2022 14:10	
Toluene-d8	2037-26-5	97.7%	59 – 131	09/26/2022 14:10	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.7	S1	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	60.3	S1	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 1A**	Collected	**09/21/2022 10:30**
Lab Sample ID	**3264939001**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	**High 1B**	Collected	**09/21/2022 10:35**
Lab Sample ID	**3264939002**	Lab Receipt	**09/22/2022 08:52**

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.0	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:47	A1S	E1
Cadmium, Total	ND	ND,S2	mg/kg	0.80	0.27	SW846 6010D	1	10/18/2022 14:47	A1S	E1
Copper, Total	11.8	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:47	A1S	E1
Lead, Total	9.1	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:47	A1S	E1
Mercury, Total	ND	ND,S2	mg/kg	0.073	0.024	SW846 7471B	1	09/28/2022 14:03	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S2	ug/kg	14.1	9.1	SW846 8081B	5	09/28/2022 19:09	KJH	E
4,4'-DDE	ND	ND,3,S2	ug/kg	14.1	4.6	SW846 8081B	5	09/28/2022 19:09	KJH	E
4,4'-DDT	ND	ND,4,S2	ug/kg	14.1	4.1	SW846 8081B	5	09/28/2022 19:09	KJH	E
Chlordane	ND	ND,S2	ug/kg	290	48.9	SW846 8081B	5	09/28/2022 19:09	KJH	E
Dieldrin	ND	ND,S2	ug/kg	14.1	5.5	SW846 8081B	5	09/28/2022 19:09	KJH	E
Mirex	ND	ND,S2	ug/kg	14.1	4.4	SW846 8081B	5	09/28/2022 19:09	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.8%	30 – 135	09/28/2022 19:09	
Tetrachloro-m-xylene	877-09-8	47.6%	30 – 111	09/28/2022 19:09	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Acenaphthylene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Anthracene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Benzo(a)anthracene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Benzo(a)pyrene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Benzo(b)fluoranthene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Benzo(g,h,i)perylene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Benzo(k)fluoranthene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Chrysene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Fluoranthene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Fluorene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Naphthalene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Phenanthrene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E
Pyrene	ND	ND,S2	ug/kg	81.2	27.6	SW846 8270D	1	09/26/2022 11:50	S7M	E

Results

Client Sample ID	High 1B	Collected	09/21/2022 10:35
Lab Sample ID	3264939002	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	84.3%	19 – 132	09/26/2022 11:50	
2-Fluorobiphenyl	321-60-8	74.6%	40 – 110	09/26/2022 11:50	
2-Fluorophenol	367-12-4	70.6%	26 – 116	09/26/2022 11:50	
Nitrobenzene-d5	4165-60-0	72.4%	38 – 112	09/26/2022 11:50	
Phenol-d5	4165-62-2	73.2%	35 – 111	09/26/2022 11:50	
Terphenyl-d14	98904-43-9	82.7%	45 – 126	09/26/2022 11:50	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S2				Subcontract	1	10/07/2022 15:17	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	10/28/2022 14:00	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	3.3	0.83	SW846 8260C	1	09/26/2022 14:34	TMP	B
Ethylbenzene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/26/2022 14:34	TMP	B
Toluene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/26/2022 14:34	TMP	B
Total Xylenes	ND	ND,S2	ug/kg	10	2.3	SW846 8260C	1	09/26/2022 14:34	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.3%	56 – 124	09/26/2022 14:34	
4-Bromofluorobenzene	460-00-4	98.3%	51 – 128	09/26/2022 14:34	
Dibromofluoromethane	1868-53-7	104%	62 – 123	09/26/2022 14:34	
Toluene-d8	2037-26-5	98.8%	59 – 131	09/26/2022 14:34	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.8	S2	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	59.2	S2	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 1B**	Collected	**09/21/2022 10:35**
Lab Sample ID	**3264939002**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 2A	Collected	09/21/2022 12:00
Lab Sample ID	3264939003	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.2	S3	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 14:48	A1S	E1
Cadmium, Total	ND	ND,S3	mg/kg	0.90	0.30	SW846 6010D	1	10/18/2022 14:48	A1S	E1
Copper, Total	13.2	S3	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 14:48	A1S	E1
Lead, Total	11.0	S3	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 14:48	A1S	E1
Mercury, Total	0.042J	J,S3	mg/kg	0.090	0.029	SW846 7471B	1	09/28/2022 14:06	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3	ug/kg	15.2	9.8	SW846 8081B	5	09/28/2022 19:20	KJH	E
4,4'-DDE	ND	ND,3,S3	ug/kg	15.2	4.9	SW846 8081B	5	09/28/2022 19:20	KJH	E
4,4'-DDT	ND	ND,4,S3	ug/kg	15.2	4.4	SW846 8081B	5	09/28/2022 19:20	KJH	E
Chlordane	ND	ND,S3	ug/kg	313	52.8	SW846 8081B	5	09/28/2022 19:20	KJH	E
Dieldrin	ND	ND,S3	ug/kg	15.2	5.9	SW846 8081B	5	09/28/2022 19:20	KJH	E
Mirex	ND	ND,S3	ug/kg	15.2	4.7	SW846 8081B	5	09/28/2022 19:20	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	48.3%	30 – 135	09/28/2022 19:20	
Tetrachloro-m-xylene	877-09-8	48.3%	30 – 111	09/28/2022 19:20	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Acenaphthylene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Anthracene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Benzo(a)anthracene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Benzo(a)pyrene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Benzo(b)fluoranthene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Benzo(g,h,i)perylene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Benzo(k)fluoranthene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Chrysene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Fluoranthene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Fluorene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Naphthalene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Phenanthrene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E
Pyrene	ND	ND,S3	ug/kg	88.9	30.2	SW846 8270D	1	09/26/2022 12:15	S7M	E

Results

Client Sample ID	High 2A	Collected	09/21/2022 12:00
Lab Sample ID	3264939003	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	84.2%	19 – 132	09/26/2022 12:15	
2-Fluorobiphenyl	321-60-8	76.7%	40 – 110	09/26/2022 12:15	
2-Fluorophenol	367-12-4	77.2%	26 – 116	09/26/2022 12:15	
Nitrobenzene-d5	4165-60-0	78.1%	38 – 112	09/26/2022 12:15	
Phenol-d5	4165-62-2	78.4%	35 – 111	09/26/2022 12:15	
Terphenyl-d14	98904-43-9	82.6%	45 – 126	09/26/2022 12:15	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S3				Subcontract	1	10/07/2022 15:18	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	10/28/2022 14:00	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	4.6	1.1	SW846 8260C	1	09/26/2022 14:59	TMP	B
Ethylbenzene	ND	ND,S3	ug/kg	4.6	1.6	SW846 8260C	1	09/26/2022 14:59	TMP	B
Toluene	ND	ND,S3	ug/kg	4.6	1.5	SW846 8260C	1	09/26/2022 14:59	TMP	B
Total Xylenes	ND	ND,S3	ug/kg	13.7	3.2	SW846 8260C	1	09/26/2022 14:59	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	87.5%	56 – 124	09/26/2022 14:59	
4-Bromofluorobenzene	460-00-4	104%	51 – 128	09/26/2022 14:59	
Dibromofluoromethane	1868-53-7	101%	62 – 123	09/26/2022 14:59	
Toluene-d8	2037-26-5	102%	59 – 131	09/26/2022 14:59	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	45.9	S3	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	54.1	S3	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 2A**	Collected	**09/21/2022 12:00**
Lab Sample ID	**3264939003**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 2B	Collected	09/21/2022 12:05
Lab Sample ID	3264939004	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.8	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:49	A1S	E1
Cadmium, Total	ND	ND,S4	mg/kg	0.82	0.28	SW846 6010D	1	10/18/2022 14:49	A1S	E1
Copper, Total	12.3	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:49	A1S	E1
Lead, Total	10.1	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:49	A1S	E1
Mercury, Total	ND	ND,S4	mg/kg	0.069	0.022	SW846 7471B	1	09/28/2022 14:07	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S4	ug/kg	38.0	24.6	SW846 8081B	5	09/28/2022 19:30	KJH	E
4,4'-DDE	ND	ND,3,S4	ug/kg	38.0	12.3	SW846 8081B	5	09/28/2022 19:30	KJH	E
4,4'-DDT	ND	ND,4,S4	ug/kg	38.0	11.0	SW846 8081B	5	09/28/2022 19:30	KJH	E
Chlordane	ND	ND,S4	ug/kg	782	132	SW846 8081B	5	09/28/2022 19:30	KJH	E
Dieldrin	ND	ND,S4	ug/kg	38.0	14.8	SW846 8081B	5	09/28/2022 19:30	KJH	E
Mirex	ND	ND,S4	ug/kg	38.0	11.8	SW846 8081B	5	09/28/2022 19:30	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.7%	30 – 135	09/28/2022 19:30	
Tetrachloro-m-xylene	877-09-8	50.3%	30 – 111	09/28/2022 19:30	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Acenaphthylene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Anthracene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Benzo(a)anthracene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Benzo(a)pyrene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Benzo(b)fluoranthene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Benzo(g,h,i)perylene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Benzo(k)fluoranthene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Chrysene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Fluoranthene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Fluorene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Naphthalene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Phenanthrene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E
Pyrene	ND	ND,S4	ug/kg	81.7	27.8	SW846 8270D	1	09/26/2022 12:39	S7M	E

Results

Client Sample ID	High 2B	Collected	09/21/2022 12:05
Lab Sample ID	3264939004	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	86.1%	19 – 132	09/26/2022 12:39	
2-Fluorobiphenyl	321-60-8	79.5%	40 – 110	09/26/2022 12:39	
2-Fluorophenol	367-12-4	76.4%	26 – 116	09/26/2022 12:39	
Nitrobenzene-d5	4165-60-0	78.8%	38 – 112	09/26/2022 12:39	
Phenol-d5	4165-62-2	78.3%	35 – 111	09/26/2022 12:39	
Terphenyl-d14	98904-43-9	86.7%	45 – 126	09/26/2022 12:39	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S4				Subcontract	1	10/07/2022 15:18	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	10/28/2022 14:01	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	3.4	0.86	SW846 8260C	1	09/26/2022 15:23	TMP	B
Ethylbenzene	ND	ND,S4	ug/kg	3.4	1.2	SW846 8260C	1	09/26/2022 15:23	TMP	B
Toluene	ND	ND,S4	ug/kg	3.4	1.1	SW846 8260C	1	09/26/2022 15:23	TMP	B
Total Xylenes	ND	ND,S4	ug/kg	10.3	2.4	SW846 8260C	1	09/26/2022 15:23	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.6%	56 – 124	09/26/2022 15:23	
4-Bromofluorobenzene	460-00-4	99.9%	51 – 128	09/26/2022 15:23	
Dibromofluoromethane	1868-53-7	106%	62 – 123	09/26/2022 15:23	
Toluene-d8	2037-26-5	100%	59 – 131	09/26/2022 15:23	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	41.1	S4	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	58.9	S4	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 2B**	Collected	**09/21/2022 12:05**
Lab Sample ID	**3264939004**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3264939001	High 1A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264939002	High 1B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264939003	High 2A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264939004	High 2B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3264939001	High 1A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 10:30	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264939002	High 1B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 10:35	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264939003	High 2A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 12:00	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264939004	High 2B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 12:05	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090

10/28/2022 2:55 PM

23 of 101

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3264939
Logged By: KSB
PM: SSL
ALS Quote #
of

Client Name: Normandeau Associates
Address: 400 Old Reading Pike
Building A, Suite 101
Stowe, PA 19464

Contact: Don Nazario
Phone#: (717) 617-7076
Project Name/#: CHPE Hudson / 24711
Bill To:
Purchase Order #: 24711.001

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X]-Y DNAZARIO@Normandeau.com

	Container Type	VOA Glass	Glass	Glass					
	Container Size	40ml	8oz	8oz					
	Preservative	MeOH	—	—					

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOA's w/ % moist	Dioxin	PAH, Pest, PCB Comp Metals							
							Enter Number of Containers Per Sample or Field Results Below.									
1	High 1A	9/21/22	1030		G	S	4	1	1							
2	High 1B	"	1035		G	S	4	1	1							
3	High 2A	"	1200		G	S	4	1	1							
4	High 2B	"	1205		G	S	4	1	1							
5																
6																
7																
8																
9																
10																

SAMPLED BY (Please Print, if MD include Sampler #): DON NAZARIO

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/21/22	1500	1	DN Ngw/Normandeau	2	Fedex
9.22.22	852	3	Fedex	4	
		5		6	
		7		8	
		9		10	

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Receipt Information (completed by Receiving Lab)

Temp Taken By: KSB Therm ID: 570 WO Temp (°C) 0
Receipt Info completed by: KSB
WV Containers 0-6°C Y N NA
Cooler Custody Seals Intact (Y) N NA
Sample Custody Seal Intact Y N (NA)
Received on Ice (Y) N NA
Coolers & Samples Intact (Y) N
Correct Containers Provided (Y) N
Sample Label/COC Agree (Y) N
Adequate Sample Volumes (Y) N
VOA only: Headspace Present Y N (NA)
VOA only: Trip Blank Y N (NA)
NJ ≤ 4 days? Y N
Courier/Tracking #: 8121 9740 3295

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y (N) Rad Screen (uCi)
Reportable SDWA Sample(s)? Y (N) New Source? Y N
SDWA State of Origin? New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

Rev 05/22

ANALYTICAL REPORT

Lab Number:	L2253136
Client:	ALS 301 Fulling Mill Road Middletown, PA 17057
ATTN:	Sarah Leung
Phone:	(717) 702-2248
Project Name:	3264939
Project Number:	Not Specified
Report Date:	10/06/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253136-01	3264939001 (HIGH 1A)	SEDIMENT	NY	09/21/22 10:30	09/27/22
L2253136-02	3264939002 (HIGH 1B)	SEDIMENT	NY	09/21/22 10:35	09/27/22
L2253136-03	3264939003 (HIGH 2A)	SEDIMENT	NY	09/21/22 12:00	09/27/22
L2253136-04	3264939004 (HIGH 2B)	SEDIMENT	NY	09/21/22 12:05	09/27/22

Project Name:	3264939	**Lab Number:**	L2253136
Project Number:	Not Specified	**Report Date:**	10/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 3264939 **Lab Number:** L2253136
Project Number: Not Specified **Report Date:** 10/06/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/06/22

ORGANICS

PCBS

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-01
Client ID: 3264939001 (HIGH 1A)
Sample Location: NY

Date Collected: 09/21/22 10:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 15:48
Analyst: PS
Percent Solids: 59%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.677	0.338	1
Cl3-BZ#18	ND		ug/kg	0.677	0.338	1
Cl3-BZ#28	ND		ug/kg	0.677	0.338	1
Cl4-BZ#44	ND		ug/kg	0.677	0.338	1
Cl4-BZ#49	ND		ug/kg	0.677	0.338	1
Cl4-BZ#52	ND		ug/kg	0.677	0.338	1
Cl4-BZ#66	ND		ug/kg	0.677	0.338	1
Cl5-BZ#87	ND		ug/kg	0.677	0.338	1
Cl5-BZ#101	ND		ug/kg	0.677	0.338	1
Cl5-BZ#105	ND		ug/kg	0.677	0.338	1
Cl5-BZ#118	ND		ug/kg	0.677	0.338	1
Cl6-BZ#128	ND		ug/kg	0.677	0.338	1
Cl6-BZ#138	ND		ug/kg	0.677	0.338	1
Cl6-BZ#153	ND		ug/kg	0.677	0.338	1
Cl7-BZ#170	ND		ug/kg	0.677	0.338	1
Cl7-BZ#180	ND		ug/kg	0.677	0.338	1
Cl7-BZ#183	ND		ug/kg	0.677	0.338	1
Cl7-BZ#184	ND		ug/kg	0.677	0.338	1
Cl7-BZ#187	ND		ug/kg	0.677	0.338	1
Cl8-BZ#195	ND		ug/kg	0.677	0.338	1
Cl9-BZ#206	ND		ug/kg	0.677	0.338	1
Cl10-BZ#209	ND		ug/kg	0.677	0.338	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	112		50-125

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-02
Client ID: 3264939002 (HIGH 1B)
Sample Location: NY

Date Collected: 09/21/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 16:16
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.651	0.325	1
Cl3-BZ#18	ND		ug/kg	0.651	0.325	1
Cl3-BZ#28	ND		ug/kg	0.651	0.325	1
Cl4-BZ#44	ND		ug/kg	0.651	0.325	1
Cl4-BZ#49	ND		ug/kg	0.651	0.325	1
Cl4-BZ#52	ND		ug/kg	0.651	0.325	1
Cl4-BZ#66	ND		ug/kg	0.651	0.325	1
Cl5-BZ#87	ND		ug/kg	0.651	0.325	1
Cl5-BZ#101	ND		ug/kg	0.651	0.325	1
Cl5-BZ#105	ND		ug/kg	0.651	0.325	1
Cl5-BZ#118	ND		ug/kg	0.651	0.325	1
Cl6-BZ#128	ND		ug/kg	0.651	0.325	1
Cl6-BZ#138	ND		ug/kg	0.651	0.325	1
Cl6-BZ#153	ND		ug/kg	0.651	0.325	1
Cl7-BZ#170	ND		ug/kg	0.651	0.325	1
Cl7-BZ#180	ND		ug/kg	0.651	0.325	1
Cl7-BZ#183	ND		ug/kg	0.651	0.325	1
Cl7-BZ#184	ND		ug/kg	0.651	0.325	1
Cl7-BZ#187	ND		ug/kg	0.651	0.325	1
Cl8-BZ#195	ND		ug/kg	0.651	0.325	1
Cl9-BZ#206	ND		ug/kg	0.651	0.325	1
Cl10-BZ#209	ND		ug/kg	0.651	0.325	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	95		50-125
BZ 198	110		50-125

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-03
Client ID: 3264939003 (HIGH 2A)
Sample Location: NY

Date Collected: 09/21/22 12:00
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 16:43
Analyst: PS
Percent Solids: 64%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.613	0.306	1
Cl3-BZ#18	3.21		ug/kg	0.613	0.306	1
Cl3-BZ#28	4.12		ug/kg	0.613	0.306	1
Cl4-BZ#44	2.52		ug/kg	0.613	0.306	1
Cl4-BZ#49	3.84		ug/kg	0.613	0.306	1
Cl4-BZ#52	4.32		ug/kg	0.613	0.306	1
Cl4-BZ#66	1.37		ug/kg	0.613	0.306	1
Cl5-BZ#87	1.71		ug/kg	0.613	0.306	1
Cl5-BZ#101	5.75		ug/kg	0.613	0.306	1
Cl5-BZ#105	1.08		ug/kg	0.613	0.306	1
Cl5-BZ#118	2.97		ug/kg	0.613	0.306	1
Cl6-BZ#128	2.31		ug/kg	0.613	0.306	1
Cl6-BZ#138	13.0		ug/kg	0.613	0.306	1
Cl6-BZ#153	9.72		ug/kg	0.613	0.306	1
Cl7-BZ#170	4.94		ug/kg	0.613	0.306	1
Cl7-BZ#180	7.42		ug/kg	0.613	0.306	1
Cl7-BZ#183	1.77		ug/kg	0.613	0.306	1
Cl7-BZ#184	ND		ug/kg	0.613	0.306	1
Cl7-BZ#187	3.67		ug/kg	0.613	0.306	1
Cl8-BZ#195	ND		ug/kg	0.613	0.306	1
Cl9-BZ#206	ND		ug/kg	0.613	0.306	1
Cl10-BZ#209	ND		ug/kg	0.613	0.306	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	93		50-125
BZ 198	119		50-125

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-04
Client ID: 3264939004 (HIGH 2B)
Sample Location: NY

Date Collected: 09/21/22 12:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 17:11
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.647	0.323	1
Cl3-BZ#18	ND		ug/kg	0.647	0.323	1
Cl3-BZ#28	ND		ug/kg	0.647	0.323	1
Cl4-BZ#44	ND		ug/kg	0.647	0.323	1
Cl4-BZ#49	ND		ug/kg	0.647	0.323	1
Cl4-BZ#52	ND		ug/kg	0.647	0.323	1
Cl4-BZ#66	ND		ug/kg	0.647	0.323	1
Cl5-BZ#87	ND		ug/kg	0.647	0.323	1
Cl5-BZ#101	ND		ug/kg	0.647	0.323	1
Cl5-BZ#105	ND		ug/kg	0.647	0.323	1
Cl5-BZ#118	ND		ug/kg	0.647	0.323	1
Cl6-BZ#128	ND		ug/kg	0.647	0.323	1
Cl6-BZ#138	ND		ug/kg	0.647	0.323	1
Cl6-BZ#153	ND		ug/kg	0.647	0.323	1
Cl7-BZ#170	ND		ug/kg	0.647	0.323	1
Cl7-BZ#180	ND		ug/kg	0.647	0.323	1
Cl7-BZ#183	ND		ug/kg	0.647	0.323	1
Cl7-BZ#184	ND		ug/kg	0.647	0.323	1
Cl7-BZ#187	ND		ug/kg	0.647	0.323	1
Cl8-BZ#195	ND		ug/kg	0.647	0.323	1
Cl9-BZ#206	ND		ug/kg	0.647	0.323	1
Cl10-BZ#209	ND		ug/kg	0.647	0.323	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	89		50-125
BZ 198	111		50-125

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 09:17
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-04 Batch: WG1693135-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	93		50-125
BZ 198	112		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3264939

Project Number: Not Specified

Lab Number: L2253136

Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-04	Batch:	WG1693135-2	WG1693135-3				
Cl2-BZ#8	74		74		40-140	0		30
Cl3-BZ#18	75		74		40-140	1		30
Cl3-BZ#28	72		73		40-140	1		30
Cl4-BZ#44	80		81		40-140	1		30
Cl4-BZ#49	77		76		40-140	1		30
Cl4-BZ#52	77		79		40-140	3		30
Cl4-BZ#66	79		79		40-140	0		30
Cl5-BZ#87	80		81		40-140	1		30
Cl5-BZ#101	77		78		40-140	1		30
Cl5-BZ#105	79		79		40-140	0		30
Cl5-BZ#118	77		77		40-140	0		30
Cl6-BZ#128	82		83		40-140	1		30
Cl6-BZ#138	79		80		40-140	1		30
Cl6-BZ#153	79		80		40-140	1		30
Cl7-BZ#170	96		96		40-140	0		30
Cl7-BZ#180	78		79		40-140	1		30
Cl7-BZ#183	76		76		40-140	0		30
Cl7-BZ#184	80		81		40-140	1		30
Cl7-BZ#187	83		85		40-140	2		30
Cl8-BZ#195	88		87		40-140	1		30
Cl9-BZ#206	85		86		40-140	1		30
Cl10-BZ#209	80		84		40-140	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-04 Batch: WG1693135-2 WG1693135-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	87		87		50-125
BZ 198	101		103		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-01
Client ID: 3264939001 (HIGH 1A)
Sample Location: NY

Date Collected: 09/21/22 10:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.7		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-02
Client ID: 3264939002 (HIGH 1B)
Sample Location: NY

Date Collected: 09/21/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.3		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-03
Client ID: 3264939003 (HIGH 2A)
Sample Location: NY

Date Collected: 09/21/22 12:00
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.7		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253136-04
Client ID: 3264939004 (HIGH 2B)
Sample Location: NY

Date Collected: 09/21/22 12:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.0		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Lab Duplicate Analysis

Batch Quality Control

Project Name: 3264939

Project Number: Not Specified

Lab Number: L2253136

Report Date: 10/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1694116-1 QC Sample: L2253205-22 Client ID: DUP Sample						
Solids, Total	87.8	87.6	%	0		10

Project Name: 3264939
Project Number: Not Specified

Lab Number: L2253136
Report Date: 10/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253136-01A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253136-02A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253136-03A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253136-04A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	3264939	**Lab Number:**	L2253136
Project Number:	Not Specified	**Report Date:**	10/06/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	3264939	**Lab Number:**	L2253136
Project Number:	Not Specified	**Report Date:**	10/06/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	3264939	**Lab Number:**	L2253136
Project Number:	Not Specified	**Report Date:**	10/06/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: 3264939 **Lab Number:** L2253136

Project Number: Not Specified **Report Date:** 10/06/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2265130

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3264939

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [x] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #: 3264939

Project Comments:

Subcontract: Alpha Analytical

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Container Type	Container Size	Preservative	NOAA 22 PCBs8270D	Alph Quote 19994								Sample/COC Comments
						G	4oz	None	Enter Number of Containers Per Sample or Field Results Below.									
1	3264939001 (High 1A)	9/21/22	1030	G	S				1									
2	3264939002 (High 1B)	9/21/22	1035	G	S				1									
3	3264939003 (High 2A)	9/21/22	1200	G	S				1									
4	3264939004 (High 2B)	9/21/22	1205	G	S				1									
5																		
6																		
7																		
8																		
9																		
10																		

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9/22/22	16:00	2 FEDEX		
3 FEDEX	9/23/22	10:03	4 [signature] ALS	9/23/22	10:03
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD [ ] other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite

**Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Serial_No:10062212:03

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line
2. Place label in shipping pouch and affix it to your shipment

ORIGIN ID:MDTA (717) 944-5541
STACEY WELK
ALS GLOBAL
301 FULLING MILL RD

MIDDLETOWN, PA 17057
UNITED STATES US

SHIP DATE: 26SEP22
ACTWGT: 29.00 LB MAN
CAD: 0402022/CAFE3616

BILL THIRD PARTY

TO **SAMPLE RECEIVING**
ALPHA ANALYTICAL MANSFIELD
320 FORBES BLVD

MANSFIELD MA 02048
(000) 000-0000 REF
INV
PO DEPT

FedEx Express

TRK# 0201 **5857 1123 5878**

TUE - 27 SEP 4:30P
STANDARD OVERNIGHT

EM PYMA

02048
MA-US **BOS**

October 25, 2022 Service Request No:E2200924

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3264939

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory September 27, 2022
For your reference, these analyses have been assigned our service request number **E2200924.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental – Middletown	**Service Request No.:**	E2200924
Project:	3264939	**Date Received:**	09/27/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Four samples were received for analysis at ALS Environmental in Houston on 09/27/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200432-02/03: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS/DLCS passed quality control ranges.

B flags – Method Blanks

The Method Blank EQ2200432-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Client: ALS Environmental - Middletown **Service Request:**E2200924
Project: 3264939

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200924-001	3264939001 (High 1A)	9/21/2022	1030
E2200924-002	3264939002 (High 1B)	9/21/2022	1035
E2200924-003	3264939003 (High 2A)	9/21/2022	1200
E2200924-004	3264939004 (High 2B)	9/21/2022	1205

Service Request Summary

Folder #: **E2200924**
Client Name: ALS Environmental - Middletown
Project Name: 3264939
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/27/22
Internal Due Date: 11/1/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 40-3264939
EDD: BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 7E
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200924-001	3264939001 (High 1A)	Soil	09/21/22 1030	II	II
E2200924-002	3264939002 (High 1B)	Soil	09/21/22 1035	II	II
E2200924-003	3264939003 (High 2A)	Soil	09/21/22 1200	II	II
E2200924-004	3264939004 (High 2B)	Soil	09/21/22 1205	II	II

Service Request Summary

Folder #:	**E2200924**
Client Name:	ALS Environmental - Middletown
Project Name:	3264939
Project Number:	

Report To:	Sarah Leung ALS Environmental - Middletown 301 Fulling Mill Road Middletown, PA 17057 USA
Phone Number:	717-944-5541
Cell Number:	
Fax Number:	
E-mail:	sarah.leung@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	09/27/22
Internal Due Date:	11/1/2022
QAP:	LAB QAP
Qualifier Set:	HRMS Qualifier Set
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	40-3264939
EDD:	BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Location: EHRMS-WIC 7E

Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2228443	12/31/2022
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Health	C819-2022	11/14/2022

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: G2200924 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
10/25/22	LKL	001_003

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
10/27/22	SL	001, 002, 003

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22U0924 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
10/20/22	JC	004

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
10/24/22	SL	004

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1 of 1

ALS Quote #:

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3264939

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Container Type	Container Size	Preservative	DIOXIN METHOD 8290
					G	8oz	None	
1 3264939001 (High 1A)	9/21/22	1030	G	S				1
2 3264939002 (High 1B)	9/21/22	1035	G	S				1
3 3264939003 (High 2A)	9/21/22	1200	G	S				1
4 3264939004 (High 2B)	9/21/22	1205	G	S				1
5								
6								
7								
8								
9								
10								

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

Receipt Information (completed by Receiving Lab)

W.O. Temp: _____ Therm ID: _____

Courier/Tracking #:

Purchase Order #: 3264939

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:_____

Sample/COC Comments

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9/26/22	1600	2 ALS	10/27/22	14:58
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

other

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist CL

Client/Project ALS-MT

Thermometer ID IR#1

Date/Time Received: 9/27/22 Initials: PG

Date/Time Logged in: 9/27/22 Initials CG

1. Method of delivery: ○ US Mail ⊘ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ⊘ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊘ No

Were they intact? ○ Yes ○ No ⊘ N/A

Were they signed and dated? ○ Yes ○ No ⊘ N/A

If yes, how many and where?

4. Packing Material: ○ Inserts ⊘ Baggies ⊘ Bubble Wrap ○ Gel Packs ⊘ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 5904		9/27/22	1458	PG	2.0	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊘ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊘ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊘ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ⊘ Yes ○ No

10. Did sample labels and tags agree with custody documents? ⊘ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

10/28/2022 2:55 PM

Prep Run#: 407191 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 9/28/22 11:07

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200883-001	22-09-0069 Ash Box #8909	.01	8290A/PCDD PCDF			Soil	10.000g	
2	E2200883-002	22-09-0070 Slag Box #1506	.01	8290A/PCDD PCDF			Soil	10.278g	
3	E2200883-003	22-09-0071 Filtercake Box #N-35289	.01	8290A/PCDD PCDF			Soil	10.166g	
4	E2200887-001	MW3 (0-2)	.01	8290/PCDD PCDF			Soil	10.001g	
5	E2200900-001	Filter Cake	.02	8290A/PCDD PCDF			Solid	10.361g	
6	E2200904-001	SWT Filtercake 2209152616	.01	8290/PCDD PCDF			Solid	10.380g	black soil
7	E2200923-001	3264940001 (High 3A)	.01	8290A/PCDD PCDF			Soil	10.002g	
8	E2200923-002	3264940002 (High 3B)	.01	8290A/PCDD PCDF			Soil	10.318g	
9	E2200923-003	3264940003 (High 4A)	.01	8290A/PCDD PCDF			Soil	10.011g	
10	E2200923-004	3264940004 (High 4B)	.01	8290A/PCDD PCDF			Soil	10.361g	
11	E2200923-005	3264940005 (High 5A)	.01	8290A/PCDD PCDF			Soil	10.129g	
12	E2200923-006	3264940006 (High 5B)	.01	8290A/PCDD PCDF			Soil	10.183g	
13	E2200924-001	3264939001 (High 1A)	.01	8290A/PCDD PCDF			Soil	10.215g	
14	E2200924-002	3264939002 (High 1B)	.01	8290A/PCDD PCDF			Soil	10.006g	
15	E2200924-003	3264939003 (High 2A)	.01	8290A/PCDD PCDF			Soil	10.109g	
16	E2200924-004	3264939004 (High 2B)	.01	8290A/PCDD PCDF			Soil	10.206g	
17	EQ2200432-01	MB		8290A/PCDD PCDF			Solid	10.087g	
18	EQ2200432-02	LCS		8290A/PCDD PCDF			Solid	10.087g	
19	EQ2200432-03	DLCS		8290A/PCDD PCDF			Solid	10.144g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 224666 Logbook Ref: tw 08/25/22 224666 Expires On: 02/21/2023

EQ2200432-02	100.00µL	EQ2200432-02	100.00µL	EQ2200432-03	100.00µL	EQ2200432-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225095 Logbook Ref: NB 225095 09/22/2022 8.000ngML Expires On: 02/28/2023

E2200883-001	100.00µL	E2200883-002	100.00µL	E2200883-003	100.00µL	E2200887-001	100.00µL	E2200900-001	100.00µL	E2200904-001	100.00µL
E2200923-001	100.00µL	E2200923-002	100.00µL	E2200923-003	100.00µL	E2200923-004	100.00µL	E2200923-005	100.00µL	E2200923-006	100.00µL
E2200924-001	100.00µL	E2200924-002	100.00µL	E2200924-003	100.00µL	E2200924-004	100.00µL	EQ2200432-01	100.00µL	EQ2200432-01	100.00µL
EQ2200432-02	100.00µL	EQ2200432-02	100.00µL	EQ2200432-03	100.00µL	EQ2200432-03	100.00µL				

Name: 1613B Labeled Working Standard Inventory ID 225177 Logbook Ref: tw 09/28/22 225177 Expires On: 03/26/2023

E2200883-001	1,000.00µL	E2200883-002	1,000.00µL	E2200883-003	1,000.00µL	E2200887-001	1,000.00µL	E2200900-001	1,000.00µL	E2200904-001	1,000.00µL
E2200923-001	1,000.00µL	E2200923-002	1,000.00µL	E2200923-003	1,000.00µL	E2200923-004	1,000.00µL	E2200923-005	1,000.00µL	E2200923-006	1,000.00µL
E2200924-001	1,000.00µL	E2200924-002	1,000.00µL	E2200924-003	1,000.00µL	E2200924-004	1,000.00µL	EQ2200432-01	1,000.00µL	EQ2200432-01	1,000.00µL

Preparation Information Benchsheet

10/28/2022 2:55 PM

Prep Run#: 407191 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 9/28/22 11:07

EQ2200432-02 1,000.00µL EQ2200432-02 1,000.00µL EQ2200432-03 1,000.00µL EQ2200432-03 1,000.00µL

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	9/28/22 11:07	Started:	10/4/22 09:00	Started:	10/4/22 10:00	Started:	10/5/22 12:00
Finished:	9/29/22 09:00	Finished:	10/4/22 10:00	Finished:	10/4/22 13:00	Finished:	10/5/22 15:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: TW Date: 09/28/22

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:30
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939001 (High 1A)	**Units:**	ng/Kg
Lab Code:	E2200924-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 05:39
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539717	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.259	0.848			1
1,2,3,7,8-PeCDD	ND	U	0.149	4.24			1
1,2,3,6,7,8-HxCDD	0.382**J**		0.103	4.24	1.17	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.108	4.24			1
1,2,3,7,8,9-HxCDD	0.305**JK**		0.106	4.24	0.86	1.006	1
1,2,3,4,6,7,8-HpCDD	7.80		0.0890	4.24	0.96	1.000	1
OCDD	204		1.04	8.48	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.296	0.848			1
1,2,3,7,8-PeCDF	ND	U	0.222	4.24			1
2,3,4,7,8-PeCDF	ND	U	0.139	4.24			1
1,2,3,6,7,8-HxCDF	ND	U	0.183	4.24			1
1,2,3,7,8,9-HxCDF	ND	U	0.255	4.24			1
1,2,3,4,7,8-HxCDF	0.372**BJ**		0.184	4.24	1.39	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.176	4.24			1
1,2,3,4,6,7,8-HpCDF	2.74**JK**		0.302	4.24	0.87	1.000	1
1,2,3,4,7,8,9-HpCDF	0.417**BJK**		0.348	4.24	0.70	1.000	1
OCDF	32.4		0.438	8.48	0.80	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:30
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939001 (High 1A)	**Units:**	ng/Kg
Lab Code:	E2200924-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 05:39
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539717	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.259	0.848			1
Total Penta-Dioxins	0.175**J**		0.149	4.24	1.73		1
Total Hexa-Dioxins	1.57**J**		0.105	4.24	1.26		1
Total Hepta-Dioxins	21.2		0.0890	4.24	0.99		1
Total Tetra-Furans	ND	U	0.296	0.848			1
Total Penta-Furans	ND	U	0.172	4.24			1
Total Hexa-Furans	0.372**J**		0.196	4.24	1.39		1
Total Hepta-Furans	3.02**J**		0.324	4.24	1.08		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:30
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939001 (High 1A)	**Units:**	Percent
Lab Code:	E2200924-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 05:39
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539717	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1397.105	70		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1289.714	64		40-135	1.61	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1295.340	65		40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1305.821	65		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1133.789	57		40-135	1.07	1.067
13C-OCDD	4000	1709.225	43		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	1211.268	61		40-135	0.80	0.991
13C-1,2,3,7,8-PeCDF	2000	1443.392	72		40-135	1.60	1.156
13C-2,3,4,7,8-PeCDF	2000	2258.186	113		40-135	1.56	1.190
13C-1,2,3,4,7,8-HxCDF	2000	1373.724	69		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1297.595	65		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1242.380	62		40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1511.005	76		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1026.392	51		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1180.814	59		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	505.508	63		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:30
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939001 (High 1A)	**Units:**	ng/Kg
Lab Code:	E2200924-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.259	0.848	1	1	
1,2,3,7,8-PeCDD	ND	0.149	4.24	1	1	
1,2,3,6,7,8-HxCDD	**0.382**	0.103	4.24	1	0.1	0.0382
1,2,3,4,7,8-HxCDD	ND	0.108	4.24	1	0.1	
1,2,3,7,8,9-HxCDD	**0.305**	0.106	4.24	1	0.1	0.0305
1,2,3,4,6,7,8-HpCDD	**7.80**	0.0890	4.24	1	0.01	0.0780
OCDD	**204**	1.04	8.48	1	0.0003	0.0612
2,3,7,8-TCDF	ND	0.296	0.848	1	0.1	
1,2,3,7,8-PeCDF	ND	0.222	4.24	1	0.03	
2,3,4,7,8-PeCDF	ND	0.139	4.24	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.183	4.24	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.255	4.24	1	0.1	
1,2,3,4,7,8-HxCDF	**0.372**	0.184	4.24	1	0.1	0.0372
2,3,4,6,7,8-HxCDF	ND	0.176	4.24	1	0.1	
1,2,3,4,6,7,8-HpCDF	**2.74**	0.302	4.24	1	0.01	0.0274
1,2,3,4,7,8,9-HpCDF	**0.417**	0.348	4.24	1	0.01	0.00417
OCDF	**32.4**	0.438	8.48	1	0.0003	0.00972
		Total TEQ				0.286

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:30
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939001 (High 1A)	**Units:**	Percent
Lab Code:	E2200924-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	7.0478g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:35
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939002 (High 1B)	**Units:**	ng/Kg
Lab Code:	E2200924-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 06:27
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539718	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.314	0.833			1
1,2,3,7,8-PeCDD	ND	U	0.233	4.16			1
1,2,3,6,7,8-HxCDD	0.287**JK**		0.178	4.16	0.52	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.196	4.16			1
1,2,3,7,8,9-HxCDD	ND	U	0.187	4.16			1
1,2,3,4,6,7,8-HpCDD	6.11		0.216	4.16	1.05	1.000	1
OCDD	69.5		1.14	8.33	0.85	1.000	1
2,3,7,8-TCDF	ND	U	0.510	0.833			1
1,2,3,7,8-PeCDF	ND	U	0.417	4.16			1
2,3,4,7,8-PeCDF	ND	U	0.257	4.16			1
1,2,3,6,7,8-HxCDF	ND	U	0.387	4.16			1
1,2,3,7,8,9-HxCDF	ND	U	0.556	4.16			1
1,2,3,4,7,8-HxCDF	ND	U	0.392	4.16			1
2,3,4,6,7,8-HxCDF	ND	U	0.357	4.16			1
1,2,3,4,6,7,8-HpCDF	5.13**P**		0.376	4.16	0.90	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.428	4.16			1
OCDF	47.3		0.708	8.33	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:35
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939002 (High 1B)	**Units:**	ng/Kg
Lab Code:	E2200924-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 06:27
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539718	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.314	0.833			1
Total Penta-Dioxins	ND	U	0.233	4.16			1
Total Hexa-Dioxins	ND	U	0.187	4.16			1
Total Hepta-Dioxins	11.4		0.216	4.16	0.93		1
Total Tetra-Furans	ND	U	0.510	0.833			1
Total Penta-Furans	ND	U	0.320	4.16			1
Total Hexa-Furans	1.01**J**		0.412	4.16	1.06		1
Total Hepta-Furans	10.7		0.401	4.16	0.90		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:35
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939002 (High 1B)	**Units:**	Percent
Lab Code:	E2200924-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 06:27
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539718	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	966.498	48		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	900.267	45		40-135	1.60	1.201
13C-1,2,3,4,7,8-HxCDD	2000	865.979	43		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	943.822	47		40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	754.642	38	**Y**	40-135	1.06	1.067
13C-OCDD	4000	988.159	25	**Y**	40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	860.083	43		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1002.525	50		40-135	1.58	1.156
13C-2,3,4,7,8-PeCDF	2000	1589.073	79		40-135	1.57	1.190
13C-1,2,3,4,7,8-HxCDF	2000	952.404	48		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	939.329	47		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	827.748	41		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1067.932	53		40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	668.077	33	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	746.063	37	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	392.757	49		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:35
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939002 (High 1B)	**Units:**	ng/Kg
Lab Code:	E2200924-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.314	0.833	1	1	
1,2,3,7,8-PeCDD	ND	0.233	4.16	1	1	
1,2,3,6,7,8-HxCDD	**0.287**	0.178	4.16	1	0.1	0.0287
1,2,3,4,7,8-HxCDD	ND	0.196	4.16	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.187	4.16	1	0.1	
1,2,3,4,6,7,8-HpCDD	**6.11**	0.216	4.16	1	0.01	0.0611
OCDD	**69.5**	1.14	8.33	1	0.0003	0.0209
2,3,7,8-TCDF	ND	0.510	0.833	1	0.1	
1,2,3,7,8-PeCDF	ND	0.417	4.16	1	0.03	
2,3,4,7,8-PeCDF	ND	0.257	4.16	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.387	4.16	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.556	4.16	1	0.1	
1,2,3,4,7,8-HxCDF	ND	0.392	4.16	1	0.1	
2,3,4,6,7,8-HxCDF	ND	0.357	4.16	1	0.1	
1,2,3,4,6,7,8-HpCDF	**5.13**	0.376	4.16	1	0.01	0.0513
1,2,3,4,7,8,9-HpCDF	ND	0.428	4.16	1	0.01	
OCDF	**47.3**	0.708	8.33	1	0.0003	0.0142
		Total TEQ				0.176

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 10:35
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939002 (High 1B)	**Units:**	Percent
Lab Code:	E2200924-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.9236g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	60.0		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:00
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939003 (High 2A)	**Units:**	ng/Kg
Lab Code:	E2200924-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 07:16
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.109g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539719	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.360	1.10			1
1,2,3,7,8-PeCDD	0.340**JK**		0.140	5.48	1.84	1.002	1
1,2,3,6,7,8-HxCDD	2.06**J**		0.192	5.48	1.19	1.000	1
1,2,3,4,7,8-HxCDD	0.731**J**		0.208	5.48	1.27	1.000	1
1,2,3,7,8,9-HxCDD	1.14**JK**		0.200	5.48	0.98	1.007	1
1,2,3,4,6,7,8-HpCDD	36.4		0.210	5.48	1.09	1.000	1
OCDD	505		1.46	11.0	0.88	1.000	1
2,3,7,8-TCDF	1.11		0.411	1.10	0.65	1.002	1
1,2,3,7,8-PeCDF	1.75**JK**		0.542	5.48	1.28	1.001	1
2,3,4,7,8-PeCDF	0.376**JK**		0.323	5.48	0.89	1.002	1
1,2,3,6,7,8-HxCDF	2.23**J**		0.328	5.48	1.28	1.000	1
1,2,3,7,8,9-HxCDF	0.885**BJK**		0.441	5.48	0.81	1.001	1
1,2,3,4,7,8-HxCDF	9.04		0.322	5.48	1.18	1.000	1
2,3,4,6,7,8-HxCDF	0.983**J**		0.303	5.48	1.29	1.000	1
1,2,3,4,6,7,8-HpCDF	180		0.748	5.48	0.97	1.000	1
1,2,3,4,7,8,9-HpCDF	16.4		0.854	5.48	1.11	1.000	1
OCDF	4360		7.83	11.0	0.85	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:00
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939003 (High 2A)	**Units:**	ng/Kg
Lab Code:	E2200924-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 07:16
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.109g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539719	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.499**J**		0.360	1.10	0.72		1
Total Penta-Dioxins	1.43**J**		0.140	5.48	1.55		1
Total Hexa-Dioxins	19.6		0.200	5.48	1.10		1
Total Hepta-Dioxins	80.5		0.210	5.48	1.05		1
Total Tetra-Furans	0.473**J**		0.411	1.10	0.75		1
Total Penta-Furans	4.76**J**		0.138	5.48	1.76		1
Total Hexa-Furans	31.8		0.342	5.48	1.38		1
Total Hepta-Furans	246		0.800	5.48	0.97		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:00
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939003 (High 2A)	**Units:**	Percent
Lab Code:	E2200924-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 07:16
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.109g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539719	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539713

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1270.111	64		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1193.793	60		40-135	1.60	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1129.456	56		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1216.252	61		40-135	1.30	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1066.183	53		40-135	1.07	1.067
13C-OCDD	4000	1605.162	40		40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	1132.186	57		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1280.120	64		40-135	1.57	1.156
13C-2,3,4,7,8-PeCDF	2000	2115.748	106		40-135	1.59	1.190
13C-1,2,3,4,7,8-HxCDF	2000	1310.463	66		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1235.009	62		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1188.030	59		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1469.232	73		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1002.597	50		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1146.415	57		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	469.480	59		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:00
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939003 (High 2A)	**Units:**	ng/Kg
Lab Code:	E2200924-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.360	1.10	1	1	
1,2,3,7,8-PeCDD	**0.340**	0.140	5.48	1	1	0.340
1,2,3,6,7,8-HxCDD	**2.06**	0.192	5.48	1	0.1	0.206
1,2,3,4,7,8-HxCDD	**0.731**	0.208	5.48	1	0.1	0.0731
1,2,3,7,8,9-HxCDD	**1.14**	0.200	5.48	1	0.1	0.114
1,2,3,4,6,7,8-HpCDD	**36.4**	0.210	5.48	1	0.01	0.364
OCDD	**505**	1.46	11.0	1	0.0003	0.152
2,3,7,8-TCDF	**1.11**	0.411	1.10	1	0.1	0.111
1,2,3,7,8-PeCDF	**1.75**	0.542	5.48	1	0.03	0.0525
2,3,4,7,8-PeCDF	**0.376**	0.323	5.48	1	0.3	0.113
1,2,3,6,7,8-HxCDF	**2.23**	0.328	5.48	1	0.1	0.223
1,2,3,7,8,9-HxCDF	**0.885**	0.441	5.48	1	0.1	0.0885
1,2,3,4,7,8-HxCDF	**9.04**	0.322	5.48	1	0.1	0.904
2,3,4,6,7,8-HxCDF	**0.983**	0.303	5.48	1	0.1	0.0983
1,2,3,4,6,7,8-HpCDF	**180**	0.748	5.48	1	0.01	1.80
1,2,3,4,7,8,9-HpCDF	**16.4**	0.854	5.48	1	0.01	0.164
OCDF	**4360**	7.83	11.0	1	0.0003	1.31
		Total TEQ				6.11

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:00
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939003 (High 2A)	**Units:**	Percent
Lab Code:	E2200924-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.1138g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	45.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939004 (High 2B)	**Units:**	ng/Kg
Lab Code:	E2200924-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:49
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.206g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539735	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.383	0.828			1
1,2,3,7,8-PeCDD	ND	U	0.304	4.14			1
1,2,3,6,7,8-HxCDD	0.415**J**		0.277	4.14	1.08	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.303	4.14			1
1,2,3,7,8,9-HxCDD	ND	U	0.290	4.14			1
1,2,3,4,6,7,8-HpCDD	4.71		0.302	4.14	0.90	1.000	1
OCDD	35.1		0.906	8.28	0.90	1.000	1
2,3,7,8-TCDF	ND	U	0.503	0.828			1
1,2,3,7,8-PeCDF	ND	U	0.299	4.14			1
2,3,4,7,8-PeCDF	ND	U	0.179	4.14			1
1,2,3,6,7,8-HxCDF	ND	U	0.217	4.14			1
1,2,3,7,8,9-HxCDF	ND	U	0.288	4.14			1
1,2,3,4,7,8-HxCDF	ND	U	0.221	4.14			1
2,3,4,6,7,8-HxCDF	ND	U	0.208	4.14			1
1,2,3,4,6,7,8-HpCDF	4.24		0.329	4.14	1.06	1.000	1
1,2,3,4,7,8,9-HpCDF	0.607**BJ**		0.404	4.14	1.18	1.000	1
OCDF	51.3		0.779	8.28	0.77	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939004 (High 2B)	**Units:**	ng/Kg
Lab Code:	E2200924-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:49
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.206g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539735	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.383	0.828			1
Total Penta-Dioxins	ND	U	0.304	4.14			1
Total Hexa-Dioxins	0.415**J**		0.289	4.14	1.08		1
Total Hepta-Dioxins	8.71		0.302	4.14	1.20		1
Total Tetra-Furans	ND	U	0.503	0.828			1
Total Penta-Furans	ND	U	0.225	4.14			1
Total Hexa-Furans	1.20**J**		0.230	4.14	1.21		1
Total Hepta-Furans	11.9		0.365	4.14	1.06		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939004 (High 2B)	**Units:**	Percent
Lab Code:	E2200924-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:49
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.206g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539735	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	705.812	35	**Y**	40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	687.276	34	**Y**	40-135	1.61	1.201
13C-1,2,3,4,7,8-HxCDD	2000	620.719	31	**Y**	40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	675.297	34	**Y**	40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	603.920	30	**Y**	40-135	1.07	1.067
13C-OCDD	4000	902.777	23	**Y**	40-135	0.88	1.139
13C-2,3,7,8-TCDF	2000	622.534	31	**Y**	40-135	0.81	0.991
13C-1,2,3,7,8-PeCDF	2000	717.680	36	**Y**	40-135	1.59	1.156
13C-2,3,4,7,8-PeCDF	2000	1189.819	59		40-135	1.57	1.190
13C-1,2,3,4,7,8-HxCDF	2000	653.975	33	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	656.939	33	**Y**	40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	640.810	32	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	750.656	38	**Y**	40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	521.181	26	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	555.454	28	**Y**	40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	385.420	48		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939004 (High 2B)	**Units:**	ng/Kg
Lab Code:	E2200924-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.383	0.828	1	1	
1,2,3,7,8-PeCDD	ND	0.304	4.14	1	1	
1,2,3,6,7,8-HxCDD	**0.415**	0.277	4.14	1	0.1	0.0415
1,2,3,4,7,8-HxCDD	ND	0.303	4.14	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.290	4.14	1	0.1	
1,2,3,4,6,7,8-HpCDD	**4.71**	0.302	4.14	1	0.01	0.0471
OCDD	**35.1**	0.906	8.28	1	0.0003	0.0105
2,3,7,8-TCDF	ND	0.503	0.828	1	0.1	
1,2,3,7,8-PeCDF	ND	0.299	4.14	1	0.03	
2,3,4,7,8-PeCDF	ND	0.179	4.14	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.217	4.14	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.288	4.14	1	0.1	
1,2,3,4,7,8-HxCDF	ND	0.221	4.14	1	0.1	
2,3,4,6,7,8-HxCDF	ND	0.208	4.14	1	0.1	
1,2,3,4,6,7,8-HpCDF	**4.24**	0.329	4.14	1	0.01	0.0424
1,2,3,4,7,8,9-HpCDF	**0.607**	0.404	4.14	1	0.01	0.00607
OCDF	**51.3**	0.779	8.28	1	0.0003	0.0154
		Total TEQ				0.163

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	09/21/22 12:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264939004 (High 2B)	**Units:**	Percent
Lab Code:	E2200924-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	8.2452g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.2		-	-			1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.115	0.496			1
1,2,3,7,8-PeCDD	ND	U	0.0579	2.48			1
1,2,3,6,7,8-HxCDD	ND	U	0.0480	2.48			1
1,2,3,4,7,8-HxCDD	ND	U	0.0546	2.48			1
1,2,3,7,8,9-HxCDD	ND	U	0.0511	2.48			1
1,2,3,4,6,7,8-HpCDD	0.189**JK**		0.0424	2.48	0.74	1.000	1
OCDD	0.436**JK**		0.106	4.96	0.67	1.000	1
2,3,7,8-TCDF	ND	U	0.199	0.496			1
1,2,3,7,8-PeCDF	ND	U	0.0659	2.48			1
2,3,4,7,8-PeCDF	ND	U	0.0397	2.48			1
1,2,3,6,7,8-HxCDF	0.0515**J**		0.0219	2.48	1.15	1.001	1
1,2,3,7,8,9-HxCDF	0.0985**JK**		0.0318	2.48	0.89	1.001	1
1,2,3,4,7,8-HxCDF	0.0532**J**		0.0234	2.48	1.19	1.001	1
2,3,4,6,7,8-HxCDF	0.0428**J**		0.0214	2.48	1.35	1.000	1
1,2,3,4,6,7,8-HpCDF	0.0924**J**		0.0200	2.48	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	0.107**J**		0.0257	2.48	1.04	1.000	1
OCDF	0.273**J**		0.0850	4.96	0.94	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.115	0.496			1
Total Penta-Dioxins	ND	U	0.0579	2.48			1
Total Hexa-Dioxins	ND	U	0.0510	2.48			1
Total Hepta-Dioxins	0.165**J**		0.0424	2.48	0.89		1
Total Tetra-Furans	ND	U	0.199	0.496			1
Total Penta-Furans	ND	U	0.0501	2.48			1
Total Hexa-Furans	0.186**J**		0.0240	2.48	1.32		1
Total Hepta-Furans	0.199**J**		0.0227	2.48	0.99		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1416.529	71		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1362.405	68		40-135	1.59	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1222.307	61		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1479.849	74		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1303.371	65		40-135	1.06	1.067
13C-OCDD	4000	2307.930	58		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	1096.466	55		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1385.811	69		40-135	1.56	1.156
13C-2,3,4,7,8-PeCDF	2000	2195.157	110		40-135	1.57	1.190
13C-1,2,3,4,7,8-HxCDF	2000	1318.052	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1381.234	69		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1257.628	63		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1505.711	75		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1180.359	59		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1166.262	58		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	419.499	52		40-135	NA	1.024

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Analyzed:**	10/19/22
Sample Matrix:	Soil	**Date Extracted:**	09/28/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	782082

	Lab Control Sample EQ2200432-02			Duplicate Lab Control Sample EQ2200432-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	106	99.1	107	104	98.6	105	70-130	2	25
1,2,3,4,7,8-HxCDD	95.4	99.1	96	95.3	98.6	97	70-130	<1	25
1,2,3,6,7,8-HxCDD	86.0	99.1	87	85.2	98.6	86	70-130	<1	25
1,2,3,7,8,9-HxCDD	89.3	99.1	90	87.3	98.6	89	70-130	2	25
1,2,3,7,8-PeCDD	89.6	99.1	90	90.2	98.6	91	70-130	<1	25
2,3,7,8-TCDD	15.2	19.8	76	14.4	19.7	73	70-130	5	25
OCDD	221	198	111	219	197	111	70-130	<1	25
1,2,3,4,6,7,8-HpCDF	93.2	99.1	94	102	98.6	103	70-130	9	25
1,2,3,4,7,8,9-HpCDF	85.8	99.1	87	87.3	98.6	89	70-130	2	25
1,2,3,4,7,8-HxCDF	81.0	99.1	82	81.4	98.6	83	70-130	<1	25
1,2,3,6,7,8-HxCDF	87.2	99.1	88	88.8	98.6	90	70-130	2	25
1,2,3,7,8,9-HxCDF	81.5	99.1	82	83.2	98.6	84	70-130	2	25
1,2,3,7,8-PeCDF	82.5	99.1	83	84.5	98.6	86	70-130	2	25
2,3,4,6,7,8-HxCDF	73.2	99.1	74	74.6	98.6	76	70-130	2	25
2,3,4,7,8-PeCDF	80.3	99.1	81	80.3	98.6	81	70-130	<1	25
2,3,7,8-TCDF	18.4	19.8	93	17.6	19.7	89	70-130	4	25
OCDF	206	198	104	251	197	127	70-130	20	25

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.2		0.250	0.496	0.74	1.001	1
1,2,3,7,8-PeCDD	89.6		0.0935	2.48	1.60	1.001	1
1,2,3,6,7,8-HxCDD	86.0		0.0824	2.48	1.30	1.000	1
1,2,3,4,7,8-HxCDD	95.4		0.0949	2.48	1.27	1.000	1
1,2,3,7,8,9-HxCDD	89.3		0.0883	2.48	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	106		0.133	2.48	1.08	1.000	1
OCDD	221		0.604	4.96	0.88	1.000	1
2,3,7,8-TCDF	18.4		0.297	0.496	0.72	1.001	1
1,2,3,7,8-PeCDF	82.5		0.350	2.48	1.48	1.001	1
2,3,4,7,8-PeCDF	80.3		0.308	2.48	1.50	1.001	1
1,2,3,6,7,8-HxCDF	87.2		0.0970	2.48	1.19	1.000	1
1,2,3,7,8,9-HxCDF	81.5		0.125	2.48	1.21	1.000	1
1,2,3,4,7,8-HxCDF	81.0		0.0922	2.48	1.16	1.000	1
2,3,4,6,7,8-HxCDF	73.2		0.0816	2.48	1.12	1.000	1
1,2,3,4,6,7,8-HpCDF	93.2		0.261	2.48	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	85.8		0.315	2.48	0.98	1.000	1
OCDF	206		0.338	4.96	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.250	0.496	0.74		1
Total Penta-Dioxins	89.6		0.0935	2.48	1.60		1
Total Hexa-Dioxins	271		0.0881	2.48	1.27		1
Total Hepta-Dioxins	112		0.133	2.48	1.16		1
Total Tetra-Furans	18.4		0.297	0.496	0.72		1
Total Penta-Furans	163		0.328	2.48	1.48		1
Total Hexa-Furans	323		0.0969	2.48	1.16		1
Total Hepta-Furans	189		0.287	2.48	0.98		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	960.480	48		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1246.614	62		40-135	1.62	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1425.066	71		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1674.563	84		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1448.269	72		40-135	1.05	1.067
13C-OCDD	4000	2352.184	59		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	783.299	39	**Y**	40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1204.089	60		40-135	1.60	1.156
13C-2,3,4,7,8-PeCDF	2000	1349.061	67		40-135	1.62	1.191
13C-1,2,3,4,7,8-HxCDF	2000	1521.205	76		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1381.483	69		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1436.295	72		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1763.113	88		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1285.936	64		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1382.826	69		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	328.607	41		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	14.4		0.214	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	90.2		0.107	2.46	1.60	1.001	1
1,2,3,6,7,8-HxCDD	85.2		0.0556	2.46	1.26	1.000	1
1,2,3,4,7,8-HxCDD	95.3		0.0617	2.46	1.27	1.000	1
1,2,3,7,8,9-HxCDD	87.3		0.0585	2.46	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	104		0.263	2.46	1.06	1.000	1
OCDD	219		0.474	4.93	0.89	1.000	1
2,3,7,8-TCDF	17.6		0.376	0.493	0.67	1.001	1
1,2,3,7,8-PeCDF	84.5		0.301	2.46	1.47	1.001	1
2,3,4,7,8-PeCDF	80.3		0.254	2.46	1.48	1.000	1
1,2,3,6,7,8-HxCDF	88.8		0.206	2.46	1.15	1.000	1
1,2,3,7,8,9-HxCDF	83.2		0.249	2.46	1.20	1.000	1
1,2,3,4,7,8-HxCDF	81.4		0.194	2.46	1.20	1.000	1
2,3,4,6,7,8-HxCDF	74.6		0.172	2.46	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	102		1.04	2.46	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	87.3		1.20	2.46	1.03	1.000	1
OCDF	251		0.839	4.93	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	14.4		0.214	0.493	0.73		1
Total Penta-Dioxins	90.3		0.107	2.46	1.60		1
Total Hexa-Dioxins	268		0.0584	2.46	1.27		1
Total Hepta-Dioxins	111		0.263	2.46	1.04		1
Total Tetra-Furans	17.6		0.376	0.493	0.67		1
Total Penta-Furans	165		0.276	2.46	1.47		1
Total Hexa-Furans	329		0.202	2.46	1.20		1
Total Hepta-Furans	200		1.11	2.46	0.99		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200924
Project:	3264939	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	956.753	48		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1378.746	69		40-135	1.61	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1504.502	75		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1691.513	85		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1548.613	77		40-135	1.05	1.067
13C-OCDD	4000	2648.285	66		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	801.003	40		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1270.218	64		40-135	1.59	1.156
13C-2,3,4,7,8-PeCDF	2000	1485.878	74		40-135	1.59	1.191
13C-1,2,3,4,7,8-HxCDF	2000	1484.182	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1354.693	68		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1452.866	73		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1746.948	87		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1304.527	65		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1429.412	71		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	312.119	39	**Y**	40-135	NA	1.024

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Normandeau Associates Inc.-Stowe

Project CHPE Hudson/24711
Workorder 3264940
Report ID 203605 on 10/28/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 22, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3264940001	High 3A	Solid	09/21/2022 11:20	09/22/2022 08:52	CBC	Collected By Client
3264940002	High 3B	Solid	09/21/2022 11:25	09/22/2022 08:52	CBC	Collected By Client
3264940003	High 4A	Solid	09/21/2022 09:55	09/22/2022 08:52	CBC	Collected By Client
3264940004	High 4B	Solid	09/21/2022 09:58	09/22/2022 08:52	CBC	Collected By Client
3264940005	High 5A	Solid	09/21/2022 09:05	09/22/2022 08:52	CBC	Collected By Client
3264940006	High 5B	Solid	09/21/2022 09:12	09/22/2022 08:52	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3264940001	High 3A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264940002	High 3B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264940003	High 4A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264940004	High 4B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264940005	High 5A	**S5**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3264940006	High 5B	**S6**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 10/28/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 41% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 32% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 58% in the bracketing CCV.
5	See attached subcontract PCB results from Alpha Analytical. SLW 10/07/2022
6	The surrogate Tetrachloro-m-xylene for method SW846 8081B was outside of control limits. The % Recovery was reported as 8.2 and the control limits were 30 to 111. This result was reported at a dilution of 5.
7	The surrogate Decachlorobiphenyl for method SW846 8081B was outside of control limits. The % Recovery was reported as 10.9 and the control limits were 30 to 135. This result was reported at a dilution of 5.
8	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 22% in the bracketing CCV.
9	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 35% in the bracketing CCV.

Detected Results Summary

Client Sample ID **High 3A** Collected **09/21/2022 11:20**
Lab Sample ID **3264940001** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.0	mg/kg	3.2	1.1	SW846 6010D	#
Copper, Total	11.6	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	8.6	mg/kg	3.2	1.1	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.0	%	0.1	0.01	S2540G-11	#
Total Solids	61.0	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 3B** Collected **09/21/2022 11:25**
Lab Sample ID **3264940002** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.3	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	13.1	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	10.0	mg/kg	3.3	1.1	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	43.1	%	0.1	0.01	S2540G-11	#
Total Solids	56.9	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 4A** Collected **09/21/2022 09:55**
Lab Sample ID **3264940003** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.5	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	12.1	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	9.1	mg/kg	3.3	1.1	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.8	%	0.1	0.01	S2540G-11	#
Total Solids	60.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 4B** Collected **09/21/2022 09:58**
Lab Sample ID **3264940004** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.7	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	13.7	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	10.3	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.032J	mg/kg	0.079	0.025	SW846 7471B	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.5	%	0.1	0.01	S2540G-11	#
Total Solids	59.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 5A** Collected **09/21/2022 09:05**
Lab Sample ID **3264940005** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.3	mg/kg	3.5	1.2	SW846 6010D	#
Copper, Total	12.6	mg/kg	3.5	1.2	SW846 6010D	#
Lead, Total	10.1	mg/kg	3.5	1.2	SW846 6010D	#
SEMIVOLATILES						
Benzo(a)pyrene	327	ug/kg	83.9	28.5	SW846 8270D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	44.8	%	0.1	0.01	S2540G-11	#
Total Solids	55.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **High 5B** Collected **09/21/2022 09:12**
Lab Sample ID **3264940006** Lab Receipt **09/22/2022 08:52**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	7.0	mg/kg	3.1	1.0	SW846 6010D	#
Copper, Total	13.2	mg/kg	3.1	1.0	SW846 6010D	#
Lead, Total	10.1	mg/kg	3.1	1.0	SW846 6010D	#
SUBCONTRACTED ANALYSIS						
Subcontracted Analysis	See attached				Subcontract	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	38.4	%	0.1	0.01	S2540G-11	#
Total Solids	61.6	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	High 3A	Collected	09/21/2022 11:20
Lab Sample ID	3264940001	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.0	S1	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:50	A1S	E1
Cadmium, Total	ND	ND,S1	mg/kg	0.79	0.26	SW846 6010D	1	10/18/2022 14:50	A1S	E1
Copper, Total	11.6	S1	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:50	A1S	E1
Lead, Total	8.6	S1	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 14:50	A1S	E1
Mercury, Total	ND	ND,S1	mg/kg	0.077	0.025	SW846 7471B	1	09/28/2022 14:09	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1	ug/kg	13.4	8.7	SW846 8081B	5	09/28/2022 19:41	KJH	E
4,4'-DDE	ND	ND,3,S1	ug/kg	13.4	4.3	SW846 8081B	5	09/28/2022 19:41	KJH	E
4,4'-DDT	ND	ND,4,S1	ug/kg	13.4	3.9	SW846 8081B	5	09/28/2022 19:41	KJH	E
Chlordane	ND	ND,S1	ug/kg	276	46.5	SW846 8081B	5	09/28/2022 19:41	KJH	E
Dieldrin	ND	ND,S1	ug/kg	13.4	5.2	SW846 8081B	5	09/28/2022 19:41	KJH	E
Mirex	ND	ND,S1	ug/kg	13.4	4.2	SW846 8081B	5	09/28/2022 19:41	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	51.7%	30 – 135	09/28/2022 19:41	
Tetrachloro-m-xylene	877-09-8	53.5%	30 – 111	09/28/2022 19:41	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Acenaphthylene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Anthracene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Benzo(a)anthracene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Benzo(a)pyrene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Benzo(b)fluoranthene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Benzo(g,h,i)perylene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Benzo(k)fluoranthene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Chrysene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Fluoranthene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Fluorene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Naphthalene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Phenanthrene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E
Pyrene	ND	ND,S1	ug/kg	74.5	25.3	SW846 8270D	1	09/26/2022 13:04	S7M	E

Results

Client Sample ID	High 3A	Collected	09/21/2022 11:20
Lab Sample ID	3264940001	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	82.5%	19 – 132	09/26/2022 13:04	
2-Fluorobiphenyl	321-60-8	78.3%	40 – 110	09/26/2022 13:04	
2-Fluorophenol	367-12-4	74.2%	26 – 116	09/26/2022 13:04	
Nitrobenzene-d5	4165-60-0	78.3%	38 – 112	09/26/2022 13:04	
Phenol-d5	4165-62-2	76.6%	35 – 111	09/26/2022 13:04	
Terphenyl-d14	98904-43-9	83.6%	45 – 126	09/26/2022 13:04	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S1				Subcontract	1	10/07/2022 15:13	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	10/28/2022 13:57	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	5.9	1.5	SW846 8260C	1	09/26/2022 15:47	TMP	B
Ethylbenzene	ND	ND,S1	ug/kg	5.9	2.0	SW846 8260C	1	09/26/2022 15:47	TMP	B
Toluene	ND	ND,S1	ug/kg	5.9	2.0	SW846 8260C	1	09/26/2022 15:47	TMP	B
Total Xylenes	ND	ND,S1	ug/kg	17.6	4.1	SW846 8260C	1	09/26/2022 15:47	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.8%	56 – 124	09/26/2022 15:47	
4-Bromofluorobenzene	460-00-4	102%	51 – 128	09/26/2022 15:47	
Dibromofluoromethane	1868-53-7	106%	62 – 123	09/26/2022 15:47	
Toluene-d8	2037-26-5	100%	59 – 131	09/26/2022 15:47	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.0	S1	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	61.0	S1	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 3A**	Collected	**09/21/2022 11:20**
Lab Sample ID	**3264940001**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 3B	Collected	09/21/2022 11:25
Lab Sample ID	3264940002	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.3	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:51	A1S	E1
Cadmium, Total	ND	ND,S2	mg/kg	0.83	0.28	SW846 6010D	1	10/18/2022 14:51	A1S	E1
Copper, Total	13.1	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:51	A1S	E1
Lead, Total	10.0	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:51	A1S	E1
Mercury, Total	ND	ND,S2	mg/kg	0.080	0.026	SW846 7471B	1	09/28/2022 14:10	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S2	ug/kg	14.5	9.4	SW846 8081B	5	09/28/2022 19:51	KJH	E
4,4'-DDE	ND	ND,3,S2	ug/kg	14.5	4.7	SW846 8081B	5	09/28/2022 19:51	KJH	E
4,4'-DDT	ND	ND,4,S2	ug/kg	14.5	4.2	SW846 8081B	5	09/28/2022 19:51	KJH	E
Chlordane	ND	ND,S2	ug/kg	299	50.5	SW846 8081B	5	09/28/2022 19:51	KJH	E
Dieldrin	ND	ND,S2	ug/kg	14.5	5.6	SW846 8081B	5	09/28/2022 19:51	KJH	E
Mirex	ND	ND,S2	ug/kg	14.5	4.5	SW846 8081B	5	09/28/2022 19:51	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	57.6%	30 – 135	09/28/2022 19:51	
Tetrachloro-m-xylene	877-09-8	56.3%	30 – 111	09/28/2022 19:51	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Acenaphthylene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Anthracene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Benzo(a)anthracene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Benzo(a)pyrene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Benzo(b)fluoranthene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Benzo(g,h,i)perylene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Benzo(k)fluoranthene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Chrysene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Fluoranthene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Fluorene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Naphthalene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Phenanthrene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E
Pyrene	ND	ND,S2	ug/kg	82.8	28.2	SW846 8270D	1	09/26/2022 13:29	S7M	E

Results

Client Sample ID	High 3B	Collected	09/21/2022 11:25
Lab Sample ID	3264940002	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	75.2%	19 – 132	09/26/2022 13:29	
2-Fluorobiphenyl	321-60-8	69.7%	40 – 110	09/26/2022 13:29	
2-Fluorophenol	367-12-4	67.4%	26 – 116	09/26/2022 13:29	
Nitrobenzene-d5	4165-60-0	68.9%	38 – 112	09/26/2022 13:29	
Phenol-d5	4165-62-2	69.8%	35 – 111	09/26/2022 13:29	
Terphenyl-d14	98904-43-9	78%	45 – 126	09/26/2022 13:29	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S2				Subcontract	1	10/07/2022 15:14	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	10/28/2022 13:57	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	3.3	0.83	SW846 8260C	1	09/26/2022 16:12	TMP	B
Ethylbenzene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/26/2022 16:12	TMP	B
Toluene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/26/2022 16:12	TMP	B
Total Xylenes	ND	ND,S2	ug/kg	10	2.3	SW846 8260C	1	09/26/2022 16:12	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.9%	56 – 124	09/26/2022 16:12	
4-Bromofluorobenzene	460-00-4	99.2%	51 – 128	09/26/2022 16:12	
Dibromofluoromethane	1868-53-7	102%	62 – 123	09/26/2022 16:12	
Toluene-d8	2037-26-5	96.8%	59 – 131	09/26/2022 16:12	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	43.1	S2	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	56.9	S2	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 3B**	Collected	**09/21/2022 11:25**
Lab Sample ID	**3264940002**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 4A	Collected	09/21/2022 09:55
Lab Sample ID	3264940003	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.5	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:55	A1S	E1
Cadmium, Total	ND	ND,S3	mg/kg	0.82	0.27	SW846 6010D	1	10/18/2022 14:55	A1S	E1
Copper, Total	12.1	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:55	A1S	E1
Lead, Total	9.1	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:55	A1S	E1
Mercury, Total	ND	ND,S3	mg/kg	0.072	0.023	SW846 7471B	1	09/28/2022 14:11	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3	ug/kg	13.9	9.0	SW846 8081B	5	09/28/2022 20:02	KJH	E
4,4'-DDE	ND	ND,3,S3	ug/kg	13.9	4.5	SW846 8081B	5	09/28/2022 20:02	KJH	E
4,4'-DDT	ND	ND,4,S3	ug/kg	13.9	4.0	SW846 8081B	5	09/28/2022 20:02	KJH	E
Chlordane	ND	ND,S3	ug/kg	287	48.3	SW846 8081B	5	09/28/2022 20:02	KJH	E
Dieldrin	ND	ND,S3	ug/kg	13.9	5.4	SW846 8081B	5	09/28/2022 20:02	KJH	E
Mirex	ND	ND,S3	ug/kg	13.9	4.3	SW846 8081B	5	09/28/2022 20:02	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	64.4%	30 – 135	09/28/2022 20:02	
Tetrachloro-m-xylene	877-09-8	61%	30 – 111	09/28/2022 20:02	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Acenaphthylene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Anthracene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Benzo(a)anthracene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Benzo(a)pyrene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Benzo(b)fluoranthene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Benzo(g,h,i)perylene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Benzo(k)fluoranthene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Chrysene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Fluoranthene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Fluorene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Naphthalene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Phenanthrene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E
Pyrene	ND	ND,S3	ug/kg	79.8	27.1	SW846 8270D	1	09/26/2022 13:54	S7M	E

Results

Client Sample ID	High 4A	Collected	09/21/2022 09:55
Lab Sample ID	3264940003	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	85.9%	19 – 132	09/26/2022 13:54	
2-Fluorobiphenyl	321-60-8	79.7%	40 – 110	09/26/2022 13:54	
2-Fluorophenol	367-12-4	79.4%	26 – 116	09/26/2022 13:54	
Nitrobenzene-d5	4165-60-0	83.2%	38 – 112	09/26/2022 13:54	
Phenol-d5	4165-62-2	80.9%	35 – 111	09/26/2022 13:54	
Terphenyl-d14	98904-43-9	80.4%	45 – 126	09/26/2022 13:54	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S3				Subcontract	1	10/07/2022 15:15	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	10/28/2022 13:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	4.7	1.2	SW846 8260C	1	09/26/2022 16:36	TMP	B
Ethylbenzene	ND	ND,S3	ug/kg	4.7	1.6	SW846 8260C	1	09/26/2022 16:36	TMP	B
Toluene	ND	ND,S3	ug/kg	4.7	1.6	SW846 8260C	1	09/26/2022 16:36	TMP	B
Total Xylenes	ND	ND,S3	ug/kg	14.2	3.3	SW846 8260C	1	09/26/2022 16:36	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	88.8%	56 – 124	09/26/2022 16:36	
4-Bromofluorobenzene	460-00-4	98.6%	51 – 128	09/26/2022 16:36	
Dibromofluoromethane	1868-53-7	103%	62 – 123	09/26/2022 16:36	
Toluene-d8	2037-26-5	99.2%	59 – 131	09/26/2022 16:36	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.8	S3	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	60.2	S3	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	High 4A	Collected	09/21/2022 09:55
Lab Sample ID	3264940003	Lab Receipt	09/22/2022 08:52

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	**High 4B**	Collected	**09/21/2022 09:58**
Lab Sample ID	**3264940004**	Lab Receipt	**09/22/2022 08:52**

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.7	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:56	A1S	E1
Cadmium, Total	ND	ND,S4	mg/kg	0.83	0.28	SW846 6010D	1	10/18/2022 14:56	A1S	E1
Copper, Total	13.7	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:56	A1S	E1
Lead, Total	10.3	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 14:56	A1S	E1
Mercury, Total	0.032J	J,S4	mg/kg	0.079	0.025	SW846 7471B	1	09/28/2022 14:12	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S4	ug/kg	14.0	9.1	SW846 8081B	5	09/28/2022 20:12	KJH	E
4,4'-DDE	ND	ND,3,S4	ug/kg	14.0	4.5	SW846 8081B	5	09/28/2022 20:12	KJH	E
4,4'-DDT	ND	ND,4,S4	ug/kg	14.0	4.0	SW846 8081B	5	09/28/2022 20:12	KJH	E
Chlordane	ND	ND,S4	ug/kg	288	48.6	SW846 8081B	5	09/28/2022 20:12	KJH	E
Dieldrin	ND	ND,S4	ug/kg	14.0	5.4	SW846 8081B	5	09/28/2022 20:12	KJH	E
Mirex	ND	ND,S4	ug/kg	14.0	4.4	SW846 8081B	5	09/28/2022 20:12	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	54.8%	30 – 135	09/28/2022 20:12	
Tetrachloro-m-xylene	877-09-8	56%	30 – 111	09/28/2022 20:12	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Acenaphthylene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Anthracene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Benzo(a)anthracene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Benzo(a)pyrene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Benzo(b)fluoranthene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Benzo(g,h,i)perylene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Benzo(k)fluoranthene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Chrysene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Fluoranthene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Fluorene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Naphthalene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Phenanthrene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E
Pyrene	ND	ND,S4	ug/kg	71.2	24.2	SW846 8270D	1	09/26/2022 14:18	S7M	E

Results

Client Sample ID **High 4B** Collected **09/21/2022 09:58**
Lab Sample ID **3264940004** Lab Receipt **09/22/2022 08:52**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	71.8%	19 – 132	09/26/2022 14:18	
2-Fluorobiphenyl	321-60-8	69.1%	40 – 110	09/26/2022 14:18	
2-Fluorophenol	367-12-4	68.2%	26 – 116	09/26/2022 14:18	
Nitrobenzene-d5	4165-60-0	68%	38 – 112	09/26/2022 14:18	
Phenol-d5	4165-62-2	68.8%	35 – 111	09/26/2022 14:18	
Terphenyl-d14	98904-43-9	74.2%	45 – 126	09/26/2022 14:18	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S4				Subcontract	1	10/07/2022 15:15	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	10/28/2022 13:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	3.4	0.85	SW846 8260C	1	09/26/2022 17:00	TMP	B
Ethylbenzene	ND	ND,S4	ug/kg	3.4	1.1	SW846 8260C	1	09/26/2022 17:00	TMP	B
Toluene	ND	ND,S4	ug/kg	3.4	1.1	SW846 8260C	1	09/26/2022 17:00	TMP	B
Total Xylenes	ND	ND,S4	ug/kg	10.1	2.4	SW846 8260C	1	09/26/2022 17:00	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.6%	56 – 124	09/26/2022 17:00	
4-Bromofluorobenzene	460-00-4	96.4%	51 – 128	09/26/2022 17:00	
Dibromofluoromethane	1868-53-7	104%	62 – 123	09/26/2022 17:00	
Toluene-d8	2037-26-5	95.3%	59 – 131	09/26/2022 17:00	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.5	S4	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	59.5	S4	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	High 4B	Collected	09/21/2022 09:58
Lab Sample ID	3264940004	Lab Receipt	09/22/2022 08:52

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 5A	Collected	09/21/2022 09:05
Lab Sample ID	3264940005	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.3	S5	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 14:57	A1S	E1
Cadmium, Total	ND	ND,S5	mg/kg	0.87	0.29	SW846 6010D	1	10/18/2022 14:57	A1S	E1
Copper, Total	12.6	S5	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 14:57	A1S	E1
Lead, Total	10.1	S5	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 14:57	A1S	E1
Mercury, Total	ND	ND,S5	mg/kg	0.083	0.027	SW846 7471B	1	09/28/2022 14:13	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S5	ug/kg	15.2	9.8	SW846 8081B	5	09/28/2022 20:23	KJH	E
4,4'-DDE	ND	ND,3,S5	ug/kg	15.2	4.9	SW846 8081B	5	09/28/2022 20:23	KJH	E
4,4'-DDT	ND	ND,4,S5	ug/kg	15.2	4.4	SW846 8081B	5	09/28/2022 20:23	KJH	E
Chlordane	ND	ND,S5	ug/kg	313	52.8	SW846 8081B	5	09/28/2022 20:23	KJH	E
Dieldrin	ND	ND,S5	ug/kg	15.2	5.9	SW846 8081B	5	09/28/2022 20:23	KJH	E
Mirex	ND	ND,S5	ug/kg	15.2	4.7	SW846 8081B	5	09/28/2022 20:23	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.8%	30 – 135	09/28/2022 20:23	
Tetrachloro-m-xylene	877-09-8	51.6%	30 – 111	09/28/2022 20:23	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Acenaphthylene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Anthracene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Benzo(a)anthracene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Benzo(a)pyrene	327	S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Benzo(b)fluoranthene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Benzo(g,h,i)perylene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Benzo(k)fluoranthene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Chrysene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Fluoranthene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Fluorene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Naphthalene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Phenanthrene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E
Pyrene	ND	ND,S5	ug/kg	83.9	28.5	SW846 8270D	1	09/26/2022 14:43	S7M	E

Results

Client Sample ID	High 5A	Collected	09/21/2022 09:05
Lab Sample ID	3264940005	Lab Receipt	09/22/2022 08:52

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	77.8%	19 – 132	09/26/2022 14:43	
2-Fluorobiphenyl	321-60-8	72.9%	40 – 110	09/26/2022 14:43	
2-Fluorophenol	367-12-4	73.8%	26 – 116	09/26/2022 14:43	
Nitrobenzene-d5	4165-60-0	76.3%	38 – 112	09/26/2022 14:43	
Phenol-d5	4165-62-2	75.5%	35 – 111	09/26/2022 14:43	
Terphenyl-d14	98904-43-9	77.8%	45 – 126	09/26/2022 14:43	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S5				Subcontract	1	10/07/2022 15:15	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S5	ug/L			EPA 1613B	1	10/28/2022 13:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S5	ug/kg	3.9	0.97	SW846 8260C	1	09/26/2022 17:25	TMP	B
Ethylbenzene	ND	ND,S5	ug/kg	3.9	1.3	SW846 8260C	1	09/26/2022 17:25	TMP	B
Toluene	ND	ND,S5	ug/kg	3.9	1.3	SW846 8260C	1	09/26/2022 17:25	TMP	B
Total Xylenes	ND	ND,S5	ug/kg	11.6	2.7	SW846 8260C	1	09/26/2022 17:25	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.1%	56 – 124	09/26/2022 17:25	
4-Bromofluorobenzene	460-00-4	97%	51 – 128	09/26/2022 17:25	
Dibromofluoromethane	1868-53-7	102%	62 – 123	09/26/2022 17:25	
Toluene-d8	2037-26-5	97.5%	59 – 131	09/26/2022 17:25	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	44.8	S5	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	55.2	S5	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	High 5A	Collected	09/21/2022 09:05
Lab Sample ID	3264940005	Lab Receipt	09/22/2022 08:52

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	High 5B	Collected	09/21/2022 09:12
Lab Sample ID	3264940006	Lab Receipt	09/22/2022 08:52

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	7.0	S6	mg/kg	3.1	1.0	SW846 6010D	1	10/18/2022 14:58	A1S	E1
Cadmium, Total	ND	ND,S6	mg/kg	0.79	0.26	SW846 6010D	1	10/18/2022 14:58	A1S	E1
Copper, Total	13.2	S6	mg/kg	3.1	1.0	SW846 6010D	1	10/18/2022 14:58	A1S	E1
Lead, Total	10.1	S6	mg/kg	3.1	1.0	SW846 6010D	1	10/18/2022 14:58	A1S	E1
Mercury, Total	ND	ND,S6	mg/kg	0.068	0.022	SW846 7471B	1	09/28/2022 14:14	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,8,S6	ug/kg	13.4	8.7	SW846 8081B	5	10/03/2022 13:51	KJH	E
4,4'-DDE	ND	ND,S6	ug/kg	13.4	4.3	SW846 8081B	5	10/03/2022 13:51	KJH	E
4,4'-DDT	ND	ND,9,S6	ug/kg	13.4	3.9	SW846 8081B	5	10/03/2022 13:51	KJH	E
Chlordane	ND	ND,S6	ug/kg	277	46.6	SW846 8081B	5	10/03/2022 13:51	KJH	E
Dieldrin	ND	ND,S6	ug/kg	13.4	5.2	SW846 8081B	5	10/03/2022 13:51	KJH	E
Mirex	ND	ND,S6	ug/kg	13.4	4.2	SW846 8081B	5	10/03/2022 13:51	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	10.9*%	30 – 135	10/03/2022 13:51	7
Tetrachloro-m-xylene	877-09-8	8.2*%	30 – 111	10/03/2022 13:51	6

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Acenaphthylene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Benzo(a)anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Benzo(a)pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Benzo(b)fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Benzo(g,h,i)perylene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Benzo(k)fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Chrysene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Fluorene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Naphthalene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Phenanthrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E
Pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/26/2022 15:08	S7M	E

Results

Client Sample ID **High 5B** Collected **09/21/2022 09:12**
Lab Sample ID **3264940006** Lab Receipt **09/22/2022 08:52**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	76.3%	19 – 132	09/26/2022 15:08	
2-Fluorobiphenyl	321-60-8	73.6%	40 – 110	09/26/2022 15:08	
2-Fluorophenol	367-12-4	71.7%	26 – 116	09/26/2022 15:08	
Nitrobenzene-d5	4165-60-0	74.8%	38 – 112	09/26/2022 15:08	
Phenol-d5	4165-62-2	72%	35 – 111	09/26/2022 15:08	
Terphenyl-d14	98904-43-9	77.6%	45 – 126	09/26/2022 15:08	

SUBCONTRACTED ANALYSIS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Subcontracted Analysis	See attached	5,S6				Subcontract	1	10/07/2022 15:16	SUB	G

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S6	ug/L			EPA 1613B	1	10/28/2022 13:59	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S6	ug/kg	3.4	0.86	SW846 8260C	1	09/26/2022 17:49	TMP	B
Ethylbenzene	ND	ND,S6	ug/kg	3.4	1.2	SW846 8260C	1	09/26/2022 17:49	TMP	B
Toluene	ND	ND,S6	ug/kg	3.4	1.2	SW846 8260C	1	09/26/2022 17:49	TMP	B
Total Xylenes	ND	ND,S6	ug/kg	10.3	2.4	SW846 8260C	1	09/26/2022 17:49	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92%	56 – 124	09/26/2022 17:49	
4-Bromofluorobenzene	460-00-4	94.7%	51 – 128	09/26/2022 17:49	
Dibromofluoromethane	1868-53-7	103%	62 – 123	09/26/2022 17:49	
Toluene-d8	2037-26-5	94.8%	59 – 131	09/26/2022 17:49	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	38.4	S6	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D
Total Solids	61.6	S6	%	0.1	0.01	S2540G-11	1	09/26/2022 14:44	NXL	D

Results

Client Sample ID	**High 5B**	Collected	**09/21/2022 09:12**
Lab Sample ID	**3264940006**	Lab Receipt	**09/22/2022 08:52**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3264940001	High 3A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264940002	High 3B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264940003	High 4A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264940004	High 4B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264940005	High 5A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3264940006	High 5B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		Subcontract	N/A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3264940001	High 3A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 11:20	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264940002	High 3B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 11:25	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264940003	High 4A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 09:55	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264940004	High 4B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 09:58	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264940005	High 5A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 09:05	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090
3264940006	High 5B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	882890	09/26/2022 15:00	JSE	SW846 6010D	891275
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		N/A	N/A	N/A		Subcontract	
		SW846 3546	882840	09/22/2022 17:15	RXS	SW846 8081B	884677
		SW846 3546	882841	09/22/2022 17:00	J1H	SW846 8270D	884132
		SW846 5035A	884099	09/21/2022 09:12	TMP	SW846 8260C	884100
		N/A	N/A	N/A		S2540G-11	883090

10/28/2022 2:54 PM

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3264940
Logged By: KSB
PM: SSL
ALS Quote
of

Client Name: Normandeau Associates
Address: 400 Old Reading Pike
Building A, Suite 101
Stowe, PA 19464
Contact: Don Nazario
Phone#: (717) 617-7076
Project Name/#: CHPE Hudson/24711
Bill To:
Purchase Order #: 24711.001
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X] -Y DNazario@Normandeau.com

	Container Type	VOA Glass	Glass							
	Container Size	40ml	80z	80z						
	Preservative	MeOH	-	-						

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOAs / Aromatics	Dioxins	PAHs, Pest, PCB, Metals							
	Enter Number of Containers Per Sample or Field Results Below.															
1	High 3A	9/21/22	1120		G	S	4	1	1							
2	High 3B		1125		G	S	4	1	1							
3	High 4A		0955		G	S	4	1	1							
4	High 4B		0958		G	S	4	1	1							
5	High 5A		0905		G	S	4	1	1							
6	High 5B		0912		G	S	4	1	1							
7																
8																
9																
10																

SAMPLED BY (Please Print, if MD include Sampler #): DON NAZARIO

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/21/22	1500	1	Normandeau	2	Fedex
9.22.22	852	3	Fedex	4	
		5		6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)
Temp Taken By: KSB Therm ID: 570 WO Temp (°C) 1
Receipt Info completed by: KSB WV Containers 0-6°C Y N (NA)

Cooler Custody Seals Intact	(Y)	N	NA	Deviations? NO YES
Sample Custody Seal Intact	Y	N	(NA)	If YES, list below:
Received on Ice	(Y)	N	NA	
Coolers & Samples Intact	(Y)	N		
Correct Containers Provided	(Y)	N		
Sample Label/COC Agree	(Y)	N		
Adequate Sample Volumes	(Y)	N		
VOA only: Headspace Present	Y	N	(NA)	
VOA only: Trip Blank	Y	N	(NA)	Client contact:

NJ ≤ 4 days? Y N Date/Tech:
Courier/Tracking #: 8121 9740 3300

Sample(s) for Radiation testing? Y (N) Rad Screen (uCi)
Reportable SDWA Sample(s)? Y (N) New Source? Y N
SDWA State of Origin? New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 05/22

ANALYTICAL REPORT

Lab Number:	L2253128
Client:	ALS 301 Fulling Mill Road Middletown, PA 17057
ATTN:	Sarah Leung
Phone:	(717) 702-2248
Project Name:	3264940
Project Number:	Not Specified
Report Date:	10/06/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253128-01	3264940001 (HIGH 3A)	SEDIMENT	NY	09/21/22 11:20	09/27/22
L2253128-02	3264940002 (HIGH 3B)	SEDIMENT	NY	09/21/22 11:25	09/27/22
L2253128-03	3264940003 (HIGH 4A)	SEDIMENT	NY	09/21/22 09:55	09/27/22
L2253128-04	3264940004 (HIGH 4B)	SEDIMENT	NY	09/21/22 09:58	09/27/22
L2253128-05	3264940005 (HIGH 5A)	SEDIMENT	NY	09/21/22 09:05	09/27/22
L2253128-06	3264940006 (HIGH 5B)	SEDIMENT	NY	09/21/22 09:12	09/27/22

Project Name:	3264940	**Lab Number:**	L2253128
Project Number:	Not Specified	**Report Date:**	10/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 3264940 **Lab Number:** L2253128
Project Number: Not Specified **Report Date:** 10/06/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/06/22

ORGANICS

PCBS

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-01
Client ID: 3264940001 (HIGH 3A)
Sample Location: NY

Date Collected: 09/21/22 11:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 13:00
Analyst: PS
Percent Solids: 59%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.644	0.322	1
Cl3-BZ#18	ND		ug/kg	0.644	0.322	1
Cl3-BZ#28	ND		ug/kg	0.644	0.322	1
Cl4-BZ#44	ND		ug/kg	0.644	0.322	1
Cl4-BZ#49	ND		ug/kg	0.644	0.322	1
Cl4-BZ#52	ND		ug/kg	0.644	0.322	1
Cl4-BZ#66	ND		ug/kg	0.644	0.322	1
Cl5-BZ#87	ND		ug/kg	0.644	0.322	1
Cl5-BZ#101	ND		ug/kg	0.644	0.322	1
Cl5-BZ#105	ND		ug/kg	0.644	0.322	1
Cl5-BZ#118	ND		ug/kg	0.644	0.322	1
Cl6-BZ#128	ND		ug/kg	0.644	0.322	1
Cl6-BZ#138	ND		ug/kg	0.644	0.322	1
Cl6-BZ#153	ND		ug/kg	0.644	0.322	1
Cl7-BZ#170	ND		ug/kg	0.644	0.322	1
Cl7-BZ#180	ND		ug/kg	0.644	0.322	1
Cl7-BZ#183	ND		ug/kg	0.644	0.322	1
Cl7-BZ#184	ND		ug/kg	0.644	0.322	1
Cl7-BZ#187	ND		ug/kg	0.644	0.322	1
Cl8-BZ#195	ND		ug/kg	0.644	0.322	1
Cl9-BZ#206	ND		ug/kg	0.644	0.322	1
Cl10-BZ#209	ND		ug/kg	0.644	0.322	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	93		50-125
BZ 198	120		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-02
Client ID: 3264940002 (HIGH 3B)
Sample Location: NY

Date Collected: 09/21/22 11:25
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 13:28
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.662	0.331	1
Cl3-BZ#18	ND		ug/kg	0.662	0.331	1
Cl3-BZ#28	ND		ug/kg	0.662	0.331	1
Cl4-BZ#44	ND		ug/kg	0.662	0.331	1
Cl4-BZ#49	ND		ug/kg	0.662	0.331	1
Cl4-BZ#52	ND		ug/kg	0.662	0.331	1
Cl4-BZ#66	ND		ug/kg	0.662	0.331	1
Cl5-BZ#87	ND		ug/kg	0.662	0.331	1
Cl5-BZ#101	ND		ug/kg	0.662	0.331	1
Cl5-BZ#105	ND		ug/kg	0.662	0.331	1
Cl5-BZ#118	ND		ug/kg	0.662	0.331	1
Cl6-BZ#128	ND		ug/kg	0.662	0.331	1
Cl6-BZ#138	ND		ug/kg	0.662	0.331	1
Cl6-BZ#153	ND		ug/kg	0.662	0.331	1
Cl7-BZ#170	ND		ug/kg	0.662	0.331	1
Cl7-BZ#180	ND		ug/kg	0.662	0.331	1
Cl7-BZ#183	ND		ug/kg	0.662	0.331	1
Cl7-BZ#184	ND		ug/kg	0.662	0.331	1
Cl7-BZ#187	ND		ug/kg	0.662	0.331	1
Cl8-BZ#195	ND		ug/kg	0.662	0.331	1
Cl9-BZ#206	ND		ug/kg	0.662	0.331	1
Cl10-BZ#209	ND		ug/kg	0.662	0.331	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	89		50-125
BZ 198	107		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-03
Client ID: 3264940003 (HIGH 4A)
Sample Location: NY

Date Collected: 09/21/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 13:56
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.642	0.321	1
Cl3-BZ#18	ND		ug/kg	0.642	0.321	1
Cl3-BZ#28	ND		ug/kg	0.642	0.321	1
Cl4-BZ#44	ND		ug/kg	0.642	0.321	1
Cl4-BZ#49	ND		ug/kg	0.642	0.321	1
Cl4-BZ#52	ND		ug/kg	0.642	0.321	1
Cl4-BZ#66	ND		ug/kg	0.642	0.321	1
Cl5-BZ#87	ND		ug/kg	0.642	0.321	1
Cl5-BZ#101	ND		ug/kg	0.642	0.321	1
Cl5-BZ#105	ND		ug/kg	0.642	0.321	1
Cl5-BZ#118	ND		ug/kg	0.642	0.321	1
Cl6-BZ#128	ND		ug/kg	0.642	0.321	1
Cl6-BZ#138	ND		ug/kg	0.642	0.321	1
Cl6-BZ#153	ND		ug/kg	0.642	0.321	1
Cl7-BZ#170	ND		ug/kg	0.642	0.321	1
Cl7-BZ#180	ND		ug/kg	0.642	0.321	1
Cl7-BZ#183	ND		ug/kg	0.642	0.321	1
Cl7-BZ#184	ND		ug/kg	0.642	0.321	1
Cl7-BZ#187	ND		ug/kg	0.642	0.321	1
Cl8-BZ#195	ND		ug/kg	0.642	0.321	1
Cl9-BZ#206	ND		ug/kg	0.642	0.321	1
Cl10-BZ#209	ND		ug/kg	0.642	0.321	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	101		50-125
BZ 198	118		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-04
Client ID: 3264940004 (HIGH 4B)
Sample Location: NY

Date Collected: 09/21/22 09:58
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 14:24
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.622	0.311	1
Cl3-BZ#18	ND		ug/kg	0.622	0.311	1
Cl3-BZ#28	ND		ug/kg	0.622	0.311	1
Cl4-BZ#44	ND		ug/kg	0.622	0.311	1
Cl4-BZ#49	ND		ug/kg	0.622	0.311	1
Cl4-BZ#52	ND		ug/kg	0.622	0.311	1
Cl4-BZ#66	ND		ug/kg	0.622	0.311	1
Cl5-BZ#87	ND		ug/kg	0.622	0.311	1
Cl5-BZ#101	ND		ug/kg	0.622	0.311	1
Cl5-BZ#105	ND		ug/kg	0.622	0.311	1
Cl5-BZ#118	ND		ug/kg	0.622	0.311	1
Cl6-BZ#128	ND		ug/kg	0.622	0.311	1
Cl6-BZ#138	ND		ug/kg	0.622	0.311	1
Cl6-BZ#153	ND		ug/kg	0.622	0.311	1
Cl7-BZ#170	ND		ug/kg	0.622	0.311	1
Cl7-BZ#180	ND		ug/kg	0.622	0.311	1
Cl7-BZ#183	ND		ug/kg	0.622	0.311	1
Cl7-BZ#184	ND		ug/kg	0.622	0.311	1
Cl7-BZ#187	ND		ug/kg	0.622	0.311	1
Cl8-BZ#195	ND		ug/kg	0.622	0.311	1
Cl9-BZ#206	ND		ug/kg	0.622	0.311	1
Cl10-BZ#209	ND		ug/kg	0.622	0.311	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	90		50-125
BZ 198	106		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-05
Client ID: 3264940005 (HIGH 5A)
Sample Location: NY

Date Collected: 09/21/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 14:52
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.651	0.326	1
Cl3-BZ#18	ND		ug/kg	0.651	0.326	1
Cl3-BZ#28	ND		ug/kg	0.651	0.326	1
Cl4-BZ#44	ND		ug/kg	0.651	0.326	1
Cl4-BZ#49	ND		ug/kg	0.651	0.326	1
Cl4-BZ#52	ND		ug/kg	0.651	0.326	1
Cl4-BZ#66	ND		ug/kg	0.651	0.326	1
Cl5-BZ#87	ND		ug/kg	0.651	0.326	1
Cl5-BZ#101	ND		ug/kg	0.651	0.326	1
Cl5-BZ#105	ND		ug/kg	0.651	0.326	1
Cl5-BZ#118	ND		ug/kg	0.651	0.326	1
Cl6-BZ#128	ND		ug/kg	0.651	0.326	1
Cl6-BZ#138	ND		ug/kg	0.651	0.326	1
Cl6-BZ#153	ND		ug/kg	0.651	0.326	1
Cl7-BZ#170	ND		ug/kg	0.651	0.326	1
Cl7-BZ#180	ND		ug/kg	0.651	0.326	1
Cl7-BZ#183	ND		ug/kg	0.651	0.326	1
Cl7-BZ#184	ND		ug/kg	0.651	0.326	1
Cl7-BZ#187	ND		ug/kg	0.651	0.326	1
Cl8-BZ#195	ND		ug/kg	0.651	0.326	1
Cl9-BZ#206	ND		ug/kg	0.651	0.326	1
Cl10-BZ#209	ND		ug/kg	0.651	0.326	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	89		50-125
BZ 198	111		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-06
Client ID: 3264940006 (HIGH 5B)
Sample Location: NY

Date Collected: 09/21/22 09:12
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 15:20
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.639	0.320	1
Cl3-BZ#18	ND		ug/kg	0.639	0.320	1
Cl3-BZ#28	ND		ug/kg	0.639	0.320	1
Cl4-BZ#44	ND		ug/kg	0.639	0.320	1
Cl4-BZ#49	ND		ug/kg	0.639	0.320	1
Cl4-BZ#52	ND		ug/kg	0.639	0.320	1
Cl4-BZ#66	ND		ug/kg	0.639	0.320	1
Cl5-BZ#87	ND		ug/kg	0.639	0.320	1
Cl5-BZ#101	ND		ug/kg	0.639	0.320	1
Cl5-BZ#105	ND		ug/kg	0.639	0.320	1
Cl5-BZ#118	ND		ug/kg	0.639	0.320	1
Cl6-BZ#128	ND		ug/kg	0.639	0.320	1
Cl6-BZ#138	ND		ug/kg	0.639	0.320	1
Cl6-BZ#153	ND		ug/kg	0.639	0.320	1
Cl7-BZ#170	ND		ug/kg	0.639	0.320	1
Cl7-BZ#180	ND		ug/kg	0.639	0.320	1
Cl7-BZ#183	ND		ug/kg	0.639	0.320	1
Cl7-BZ#184	ND		ug/kg	0.639	0.320	1
Cl7-BZ#187	ND		ug/kg	0.639	0.320	1
Cl8-BZ#195	ND		ug/kg	0.639	0.320	1
Cl9-BZ#206	ND		ug/kg	0.639	0.320	1
Cl10-BZ#209	ND		ug/kg	0.639	0.320	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		50-125
BZ 198	107		50-125

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/04/22 09:17
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 09/28/22 21:00
Cleanup Method: EPA 3630
Cleanup Date: 09/29/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-06 Batch: WG1693135-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	93		50-125
BZ 198	112		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3264940

Project Number: Not Specified

Lab Number: L2253128

Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-06 Batch: WG1693135-2 WG1693135-3							
Cl2-BZ#8	74		74		40-140	0		30
Cl3-BZ#18	75		74		40-140	1		30
Cl3-BZ#28	72		73		40-140	1		30
Cl4-BZ#44	80		81		40-140	1		30
Cl4-BZ#49	77		76		40-140	1		30
Cl4-BZ#52	77		79		40-140	3		30
Cl4-BZ#66	79		79		40-140	0		30
Cl5-BZ#87	80		81		40-140	1		30
Cl5-BZ#101	77		78		40-140	1		30
Cl5-BZ#105	79		79		40-140	0		30
Cl5-BZ#118	77		77		40-140	0		30
Cl6-BZ#128	82		83		40-140	1		30
Cl6-BZ#138	79		80		40-140	1		30
Cl6-BZ#153	79		80		40-140	1		30
Cl7-BZ#170	96		96		40-140	0		30
Cl7-BZ#180	78		79		40-140	1		30
Cl7-BZ#183	76		76		40-140	0		30
Cl7-BZ#184	80		81		40-140	1		30
Cl7-BZ#187	83		85		40-140	2		30
Cl8-BZ#195	88		87		40-140	1		30
Cl9-BZ#206	85		86		40-140	1		30
Cl10-BZ#209	80		84		40-140	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-06 Batch: WG1693135-2 WG1693135-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	87		87		50-125
BZ 198	101		103		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-01
Client ID: 3264940001 (HIGH 3A)
Sample Location: NY

Date Collected: 09/21/22 11:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.8		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-02
Client ID: 3264940002 (HIGH 3B)
Sample Location: NY

Date Collected: 09/21/22 11:25
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.2		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-03
Client ID: 3264940003 (HIGH 4A)
Sample Location: NY

Date Collected: 09/21/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.3		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-04
Client ID: 3264940004 (HIGH 4B)
Sample Location: NY

Date Collected: 09/21/22 09:58
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.6		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-05
Client ID: 3264940005 (HIGH 5A)
Sample Location: NY

Date Collected: 09/21/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	57.8		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253128-06
Client ID: 3264940006 (HIGH 5B)
Sample Location: NY

Date Collected: 09/21/22 09:12
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.1		%	0.100	0.100	1	-	09/30/22 13:10	121,2540G	VM

Lab Duplicate Analysis

Batch Quality Control

Project Name: 3264940

Project Number: Not Specified

Lab Number: L2253128

Report Date: 10/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1694116-1 QC Sample: L2253205-22 Client ID: DUP Sample						
Solids, Total	87.8	87.6	%	0		10

Project Name: 3264940
Project Number: Not Specified

Lab Number: L2253128
Report Date: 10/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253128-01A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253128-02A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253128-03A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253128-04A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253128-05A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253128-06A	Glass 250ml/8oz unpreserved	A	NA		1.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	3264940	**Lab Number:**	L2253128
Project Number:	Not Specified	**Report Date:**	10/06/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	3264940	**Lab Number:**	L2253128
Project Number:	Not Specified	**Report Date:**	10/06/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	3264940	**Lab Number:**	L2253128
Project Number:	Not Specified	**Report Date:**	10/06/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: 3264940 **Lab Number:** L2253128

Project Number: Not Specified **Report Date:** 10/06/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

9/27/21

L2253128

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: | 1 of 1

ALS Quote #:

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3264940

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

	Container Type	G										
	Container Size	4oz										
	Preservative	None										

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	NOAA 22 PCBs8270D	Alph Quote 19994								
						Enter Number of Containers Per Sample or Field Results Below.									
1	3264940001 (High 3A)	9/21/22	1120	G	S	1									
2	3264940002 (High 3B)	9/21/22	1125	G	S	1									
3	3264940003 (High 4A)	9/21/22	0955	G	S	1									
4	3264940004 (High 4B)	9/21/22	0958	G	S	1									
5	3264940005 (High 5A)	9/21/22	0905	G	S	1									
6	3264940006 (High 5B)	9/21/22	0912	G	S	1									
7															
8															
9															
10															

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #: 3264940

Project Comments:

Subcontract: Alpha Analytical

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other: ____

Sample/COC Comments

SAMPLED BY (Please Print):

Sampler Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		9/26/22	1600	2	FEDEX		
3	FEDEX	9/27/22	10:03	4	AAL	9/27/22	1003
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD [ ] other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite

**Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

October 25, 2022 Service Request No:E2200923

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3264940

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory September 27, 2022
For your reference, these analyses have been assigned our service request number **E2200923.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental – Middletown	**Service Request No.:**	E2200923
Project:	3264940	**Date Received:**	09/27/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 09/27/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200432-02/03: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS/DLCS passed quality control ranges.

B flags – Method Blanks

The Method Blank EQ2200432-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

E flags

When OCDF exceeds the upper method calibration limit (MCL), we use an 'E' flag on the Sample Analytical Report results page when the detector is not saturated. Sample E2200923-001 is reported with an 'E' flag to denote that they had concentration greater than the highest calibration point. The process of dilution is counter to the isotopic dilution technique that the laboratory uses to determine recovery and produces variability in the final value. The laboratory only dilutes when detector saturation occurs.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - Middletown **Service Request:**E2200923
Project: 3264940

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200923-001	3264940001 (High 3A)	9/21/2022	1120
E2200923-002	3264940002 (High 3B)	9/21/2022	1125
E2200923-003	3264940003 (High 4A)	9/21/2022	0955
E2200923-004	3264940004 (High 4B)	9/21/2022	0958
E2200923-005	3264940005 (High 5A)	9/21/2022	0905
E2200923-006	3264940006 (High 5B)	9/21/2022	0912

Service Request Summary

Folder #: **E2200923**
Client Name: ALS Environmental - Middletown
Project Name: 3264940
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/27/22
Internal Due Date: 11/1/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 40-3264940
EDD: BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 7E
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200923-001	3264940001 (High 3A)	Soil	09/21/22 1120	II	II
E2200923-002	3264940002 (High 3B)	Soil	09/21/22 1125	II	II
E2200923-003	3264940003 (High 4A)	Soil	09/21/22 0955	II	II
E2200923-004	3264940004 (High 4B)	Soil	09/21/22 0958	II	II
E2200923-005	3264940005 (High 5A)	Soil	09/21/22 0905	II	II
E2200923-006	3264940006 (High 5B)	Soil	09/21/22 0912	II	II

Printed 10/25/2022 4:29:53 PM

Service Request Summary

Folder #: **E2200923**
Client Name: ALS Environmental - Middletown
Project Name: 3264940
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 09/27/22
Internal Due Date: 11/1/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 40-3264940
EDD: BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 7E
Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2228443	12/31/2022
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Health	C819-2022	11/14/2022

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E2200923 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
10/25/22	LKL	001, 002, 004

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
10/27/22	SL	001, 002, 004

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22009 23 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
10/20/22	JC	003, 005, 006

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
10/20/22	SL	003, 005, 006

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3264940

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Receipt Information (completed by Receiving Lab)
W.O. Temp: ____ Therm ID: ____
Courier/Tracking #:
Purchase Order #: 3264940

Project Comments:
Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Container Type	Container Size	Perservative	DIOXIN METHOD 8290	Sample/COC Comments
						G	8oz	None	Enter Number of Containers Per Sample or Field Results Below.	
1	3264940001 (High 3A)	9/21/22	1120	G	S				1	
2	3264940002 (High 3B)	9/21/22	1125	G	S				1	
3	3264940003 (High 4A)	9/21/22	0955	G	S				1	
4	3264940004 (High 4B)	9/21/22	0958	G	S				1	
5	3264940005 (High 5A)	9/21/22	0905	G	S				1	
6	3264940006 (High 5B)	9/21/22	0912	G	S				1	
7										
8										
9	Blue ice 2.2 #31 IR-0.2									
10										

SAMPLED BY (Please Print):

Sampler Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		9/26/22	1600	2	ALS Lab	9/27/22	14:58
3				4			
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: [ ] USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD [ ] other

Reportable to PADEP? Yes [ ] No [ ]
PWSID #

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type- Excel

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist CL

Client/Project ALS-MT

Thermometer ID IR21

Date/Time Received: 9/27/22 Initials: PG

Date/Time Logged in: 9/27/22 Initials CG

1. Method of delivery: ○ US Mail ⊘ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ⊘ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊘ No

Were they intact? ○ Yes ○ No ⊘ N/A

Were they signed and dated? ○ Yes ○ No ⊘ N/A

If yes, how many and where?

4. Packing Material: ○ Inserts ⊘ Baggies ⊘ Bubble Wrap ○ Gel Packs ⊘ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 5904		9/27/22	1458	PG	2.0	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊘ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊘ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊘ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ⊘ Yes ○ No

10. Did sample labels and tags agree with custody documents? ⊘ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
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www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

10/28/2022 2:54 PM

Prep Run#: 407191 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 9/28/22 11:07

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200883-001	22-09-0069 Ash Box #8909	.01	8290A/PCDD PCDF			Soil	10.000g	
2	E2200883-002	22-09-0070 Slag Box #1506	.01	8290A/PCDD PCDF			Soil	10.278g	
3	E2200883-003	22-09-0071 Filtercake Box #N-35289	.01	8290A/PCDD PCDF			Soil	10.166g	
4	E2200887-001	MW3 (0-2)	.01	8290/PCDD PCDF			Soil	10.001g	
5	E2200900-001	Filter Cake	.02	8290A/PCDD PCDF			Solid	10.361g	
6	E2200904-001	SWT Filtercake 2209152616	.01	8290/PCDD PCDF			Solid	10.380g	black soil
7	E2200923-001	3264940001 (High 3A)	.01	8290A/PCDD PCDF			Soil	10.002g	
8	E2200923-002	3264940002 (High 3B)	.01	8290A/PCDD PCDF			Soil	10.318g	
9	E2200923-003	3264940003 (High 4A)	.01	8290A/PCDD PCDF			Soil	10.011g	
10	E2200923-004	3264940004 (High 4B)	.01	8290A/PCDD PCDF			Soil	10.361g	
11	E2200923-005	3264940005 (High 5A)	.01	8290A/PCDD PCDF			Soil	10.129g	
12	E2200923-006	3264940006 (High 5B)	.01	8290A/PCDD PCDF			Soil	10.183g	
13	E2200924-001	3264939001 (High 1A)	.01	8290A/PCDD PCDF			Soil	10.215g	
14	E2200924-002	3264939002 (High 1B)	.01	8290A/PCDD PCDF			Soil	10.006g	
15	E2200924-003	3264939003 (High 2A)	.01	8290A/PCDD PCDF			Soil	10.109g	
16	E2200924-004	3264939004 (High 2B)	.01	8290A/PCDD PCDF			Soil	10.206g	
17	EQ2200432-01	MB		8290A/PCDD PCDF			Solid	10.087g	
18	EQ2200432-02	LCS		8290A/PCDD PCDF			Solid	10.087g	
19	EQ2200432-03	DLCS		8290A/PCDD PCDF			Solid	10.144g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 224666 Logbook Ref: tw 08/25/22 224666 Expires On: 02/21/2023

EQ2200432-02	100.00µL	EQ2200432-02	100.00µL	EQ2200432-03	100.00µL	EQ2200432-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225095 Logbook Ref: NB 225095 09/22/2022 8.000ngML Expires On: 02/28/2023

E2200883-001	100.00µL	E2200883-002	100.00µL	E2200883-003	100.00µL	E2200887-001	100.00µL	E2200900-001	100.00µL	E2200904-001	100.00µL
E2200923-001	100.00µL	E2200923-002	100.00µL	E2200923-003	100.00µL	E2200923-004	100.00µL	E2200923-005	100.00µL	E2200923-006	100.00µL
E2200924-001	100.00µL	E2200924-002	100.00µL	E2200924-003	100.00µL	E2200924-004	100.00µL	EQ2200432-01	100.00µL	EQ2200432-01	100.00µL
EQ2200432-02	100.00µL	EQ2200432-02	100.00µL	EQ2200432-03	100.00µL	EQ2200432-03	100.00µL				

Name: 1613B Labeled Working Standard Inventory ID 225177 Logbook Ref: tw 09/28/22 225177 Expires On: 03/26/2023

E2200883-001	1,000.00µL	E2200883-002	1,000.00µL	E2200883-003	1,000.00µL	E2200887-001	1,000.00µL	E2200900-001	1,000.00µL	E2200904-001	1,000.00µL
E2200923-001	1,000.00µL	E2200923-002	1,000.00µL	E2200923-003	1,000.00µL	E2200923-004	1,000.00µL	E2200923-005	1,000.00µL	E2200923-006	1,000.00µL
E2200924-001	1,000.00µL	E2200924-002	1,000.00µL	E2200924-003	1,000.00µL	E2200924-004	1,000.00µL	EQ2200432-01	1,000.00µL	EQ2200432-01	1,000.00µL

Preparation Information Benchsheet

10/28/2022 2:54 PM

Prep Run#: 407191 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 9/28/22 11:07

EQ2200432-02	1,000.00µL	EQ2200432-02	1,000.00µL	EQ2200432-03	1,000.00µL	EQ2200432-03	1,000.00µL

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	9/28/22 11:07	Started:	10/4/22 09:00	Started:	10/4/22 10:00	Started:	10/5/22 12:00
Finished:	9/29/22 09:00	Finished:	10/4/22 10:00	Finished:	10/4/22 13:00	Finished:	10/5/22 15:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments:

Reviewed By: TW Date: 09/28/22

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:20
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940001 (High 3A)	**Units:**	ng/Kg
Lab Code:	E2200923-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 05:19
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.002g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539770	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.464	0.852			1
1,2,3,7,8-PeCDD	ND	U	0.481	4.26			1
1,2,3,6,7,8-HxCDD	1.27**J**		0.301	4.26	1.42	1.000	1
1,2,3,4,7,8-HxCDD	0.487**JK**		0.330	4.26	2.23	1.001	1
1,2,3,7,8,9-HxCDD	0.930**JK**		0.316	4.26	1.49	1.007	1
1,2,3,4,6,7,8-HpCDD	21.0		0.328	4.26	1.02	1.001	1
OCDD	198		2.60	8.52	0.90	1.000	1
2,3,7,8-TCDF	1.34**K**		0.626	0.852	0.60	1.001	1
1,2,3,7,8-PeCDF	6.67		1.56	4.26	1.67	1.000	1
2,3,4,7,8-PeCDF	ND	U	0.840	4.26			1
1,2,3,6,7,8-HxCDF	9.53**K**		0.813	4.26	1.01	1.000	1
1,2,3,7,8,9-HxCDF	3.98**JK**		1.15	4.26	0.88	1.001	1
1,2,3,4,7,8-HxCDF	40.8		0.806	4.26	1.28	1.000	1
2,3,4,6,7,8-HxCDF	3.74**JK**		0.656	4.26	1.50	1.000	1
1,2,3,4,6,7,8-HpCDF	838		1.87	4.26	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	71.0		2.03	4.26	1.03	1.001	1
OCDF	18800**E**		19.2	19.2	0.87	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:20
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940001 (High 3A)	**Units:**	ng/Kg
Lab Code:	E2200923-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 05:19
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.002g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539770	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.464	0.852			1
Total Penta-Dioxins	ND	U	0.481	4.26			1
Total Hexa-Dioxins	1.27**J**		0.315	4.26	1.42		1
Total Hepta-Dioxins	37.5		0.328	4.26	0.90		1
Total Tetra-Furans	ND	U	0.626	0.852			1
Total Penta-Furans	15.0		1.11	4.26	1.44		1
Total Hexa-Furans	87.3		0.824	4.26	1.20		1
Total Hepta-Furans	1140		1.95	4.26	0.99		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:20
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940001 (High 3A)	**Units:**	Percent
Lab Code:	E2200923-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 05:19
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.002g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539770	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	458.810	23	**Y**	40-135	0.76	1.023
13C-1,2,3,7,8-PeCDD	2000	359.456	18	**Y**	40-135	1.63	1.202
13C-1,2,3,4,7,8-HxCDD	2000	303.870	15	**Y**	40-135	1.33	0.991
13C-1,2,3,6,7,8-HxCDD	2000	322.286	16	**Y**	40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	226.394	11	**Y**	40-135	1.06	1.067
13C-OCDD	4000	289.236	7	**Y**	40-135	0.93	1.139
13C-2,3,7,8-TCDF	2000	425.830	21	**Y**	40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	373.262	19	**Y**	40-135	1.57	1.157
13C-2,3,4,7,8-PeCDF	2000	669.860	33	**Y**	40-135	1.58	1.192
13C-1,2,3,4,7,8-HxCDF	2000	296.914	15	**Y**	40-135	0.48	0.970
13C-1,2,3,6,7,8-HxCDF	2000	295.191	15	**Y**	40-135	0.48	0.973
13C-1,2,3,7,8,9-HxCDF	2000	262.513	13	**Y**	40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	381.156	19	**Y**	40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	182.605	9	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	212.673	11	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	391.592	49		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:20
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940001 (High 3A)	**Units:**	ng/Kg
Lab Code:	E2200923-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.464	0.852	1	1	
1,2,3,7,8-PeCDD	ND	0.481	4.26	1	1	
1,2,3,6,7,8-HxCDD	**1.27**	0.301	4.26	1	0.1	0.127
1,2,3,4,7,8-HxCDD	**0.487**	0.330	4.26	1	0.1	0.0487
1,2,3,7,8,9-HxCDD	**0.930**	0.316	4.26	1	0.1	0.0930
1,2,3,4,6,7,8-HpCDD	**21.0**	0.328	4.26	1	0.01	0.210
OCDD	**198**	2.60	8.52	1	0.0003	0.0594
2,3,7,8-TCDF	**1.34**	0.626	0.852	1	0.1	0.134
1,2,3,7,8-PeCDF	**6.67**	1.56	4.26	1	0.03	0.200
2,3,4,7,8-PeCDF	ND	0.840	4.26	1	0.3	
1,2,3,6,7,8-HxCDF	**9.53**	0.813	4.26	1	0.1	0.953
1,2,3,7,8,9-HxCDF	**3.98**	1.15	4.26	1	0.1	0.398
1,2,3,4,7,8-HxCDF	**40.8**	0.806	4.26	1	0.1	4.08
2,3,4,6,7,8-HxCDF	**3.74**	0.656	4.26	1	0.1	0.374
1,2,3,4,6,7,8-HpCDF	**838**	1.87	4.26	1	0.01	8.38
1,2,3,4,7,8,9-HpCDF	**71.0**	2.03	4.26	1	0.01	0.710
OCDF	**18800**	19.2	19.2	1	0.0003	5.64
		Total TEQ				21.4

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:20
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940001 (High 3A)	**Units:**	Percent
Lab Code:	E2200923-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	7.0213g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	58.7		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:25
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940002 (High 3B)	**Units:**	ng/Kg
Lab Code:	E2200923-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:07
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539771	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.601	0.846			1
1,2,3,7,8-PeCDD	ND	U	0.290	4.23			1
1,2,3,6,7,8-HxCDD	0.341**JK**		0.232	4.23	0.68	1.001	1
1,2,3,4,7,8-HxCDD	0.364**JK**		0.258	4.23	1.48	1.001	1
1,2,3,7,8,9-HxCDD	0.611**JK**		0.245	4.23	0.98	1.007	1
1,2,3,4,6,7,8-HpCDD	9.38		0.149	4.23	1.11	1.000	1
OCDD	123		1.03	8.46	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.566	0.846			1
1,2,3,7,8-PeCDF	ND	U	0.431	4.23			1
2,3,4,7,8-PeCDF	ND	U	0.236	4.23			1
1,2,3,6,7,8-HxCDF	0.505**BJ**		0.176	4.23	1.15	1.000	1
1,2,3,7,8,9-HxCDF	0.421**BJK**		0.267	4.23	2.03	1.001	1
1,2,3,4,7,8-HxCDF	1.07**J**		0.189	4.23	1.07	1.000	1
2,3,4,6,7,8-HxCDF	0.444**J**		0.153	4.23	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	12.0		0.454	4.23	1.10	1.000	1
1,2,3,4,7,8,9-HpCDF	1.22**J**		0.560	4.23	1.17	1.000	1
OCDF	165		0.920	8.46	0.83	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:25
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940002 (High 3B)	**Units:**	ng/Kg
Lab Code:	E2200923-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:07
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539771	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.601	0.846			1
Total Penta-Dioxins	ND	U	0.290	4.23			1
Total Hexa-Dioxins	2.54**J**		0.245	4.23	1.17		1
Total Hepta-Dioxins	9.38		0.149	4.23	1.11		1
Total Tetra-Furans	ND	U	0.566	0.846			1
Total Penta-Furans	ND	U	0.308	4.23			1
Total Hexa-Furans	2.02**J**		0.189	4.23	1.07		1
Total Hepta-Furans	25.7		0.505	4.23	1.10		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:25
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940002 (High 3B)	**Units:**	Percent
Lab Code:	E2200923-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:07
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539771	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	429.992	21	**Y**	40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	401.218	20	**Y**	40-135	1.63	1.202
13C-1,2,3,4,7,8-HxCDD	2000	377.000	19	**Y**	40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	420.244	21	**Y**	40-135	1.30	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	369.188	18	**Y**	40-135	1.11	1.067
13C-OCDD	4000	512.994	13	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	387.000	19	**Y**	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	403.165	20	**Y**	40-135	1.59	1.157
13C-2,3,4,7,8-PeCDF	2000	723.590	36	**Y**	40-135	1.63	1.192
13C-1,2,3,4,7,8-HxCDF	2000	400.526	20	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	398.627	20	**Y**	40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	356.329	18	**Y**	40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	503.017	25	**Y**	40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	308.739	15	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	327.935	16	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	335.780	42		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:25
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940002 (High 3B)	**Units:**	ng/Kg
Lab Code:	E2200923-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.601	0.846	1	1	
1,2,3,7,8-PeCDD	ND	0.290	4.23	1	1	
1,2,3,6,7,8-HxCDD	**0.341**	0.232	4.23	1	0.1	0.0341
1,2,3,4,7,8-HxCDD	**0.364**	0.258	4.23	1	0.1	0.0364
1,2,3,7,8,9-HxCDD	**0.611**	0.245	4.23	1	0.1	0.0611
1,2,3,4,6,7,8-HpCDD	**9.38**	0.149	4.23	1	0.01	0.0938
OCDD	**123**	1.03	8.46	1	0.0003	0.0369
2,3,7,8-TCDF	ND	0.566	0.846	1	0.1	
1,2,3,7,8-PeCDF	ND	0.431	4.23	1	0.03	
2,3,4,7,8-PeCDF	ND	0.236	4.23	1	0.3	
1,2,3,6,7,8-HxCDF	**0.505**	0.176	4.23	1	0.1	0.0505
1,2,3,7,8,9-HxCDF	**0.421**	0.267	4.23	1	0.1	0.0421
1,2,3,4,7,8-HxCDF	**1.07**	0.189	4.23	1	0.1	0.107
2,3,4,6,7,8-HxCDF	**0.444**	0.153	4.23	1	0.1	0.0444
1,2,3,4,6,7,8-HpCDF	**12.0**	0.454	4.23	1	0.01	0.120
1,2,3,4,7,8,9-HpCDF	**1.22**	0.560	4.23	1	0.01	0.0122
OCDF	**165**	0.920	8.46	1	0.0003	0.0495
		Total TEQ				0.688

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 11:25
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940002 (High 3B)	**Units:**	Percent
Lab Code:	E2200923-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.4763g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.3		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:55
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940003 (High 4A)	**Units:**	ng/Kg
Lab Code:	E2200923-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 17:36
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.011g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539731	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.683	0.857			1
1,2,3,7,8-PeCDD	ND	U	0.283	4.28			1
1,2,3,6,7,8-HxCDD	ND	U	0.280	4.28			1
1,2,3,4,7,8-HxCDD	ND	U	0.316	4.28			1
1,2,3,7,8,9-HxCDD	ND	U	0.297	4.28			1
1,2,3,4,6,7,8-HpCDD	4.99		0.422	4.28	1.20	1.000	1
OCDD	47.9		1.18	8.57	0.87	1.000	1
2,3,7,8-TCDF	ND	U	0.808	0.857			1
1,2,3,7,8-PeCDF	ND	U	0.445	4.28			1
2,3,4,7,8-PeCDF	ND	U	0.236	4.28			1
1,2,3,6,7,8-HxCDF	ND	U	0.227	4.28			1
1,2,3,7,8,9-HxCDF	ND	U	0.336	4.28			1
1,2,3,4,7,8-HxCDF	0.349**BJK**		0.237	4.28	0.97	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.213	4.28			1
1,2,3,4,6,7,8-HpCDF	4.84		0.368	4.28	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	0.724**BJ**		0.455	4.28	1.15	1.000	1
OCDF	59.6		0.737	8.57	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:55
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940003 (High 4A)	**Units:**	ng/Kg
Lab Code:	E2200923-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 17:36
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.011g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539731	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.683	0.857			1
Total Penta-Dioxins	ND	U	0.283	4.28			1
Total Hexa-Dioxins	ND	U	0.297	4.28			1
Total Hepta-Dioxins	ND	U	0.422	4.28			1
Total Tetra-Furans	ND	U	0.808	0.857			1
Total Penta-Furans	ND	U	0.312	4.28			1
Total Hexa-Furans	ND	U	0.246	4.28			1
Total Hepta-Furans	13.0		0.409	4.28	1.00		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:55
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940003 (High 4A)	**Units:**	Percent
Lab Code:	E2200923-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 17:36
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.011g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539731	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	641.463	32	**Y**	40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	679.067	34	**Y**	40-135	1.58	1.201
13C-1,2,3,4,7,8-HxCDD	2000	682.311	34	**Y**	40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	757.157	38	**Y**	40-135	1.22	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	671.964	34	**Y**	40-135	1.04	1.067
13C-OCDD	4000	1014.770	25	**Y**	40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	553.593	28	**Y**	40-135	0.77	0.992
13C-1,2,3,7,8-PeCDF	2000	678.019	34	**Y**	40-135	1.58	1.156
13C-2,3,4,7,8-PeCDF	2000	1221.499	61		40-135	1.57	1.191
13C-1,2,3,4,7,8-HxCDF	2000	707.798	35	**Y**	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	714.440	36	**Y**	40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	640.191	32	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	857.771	43		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	575.611	29	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	603.150	30	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	330.073	41		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:55
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940003 (High 4A)	**Units:**	ng/Kg
Lab Code:	E2200923-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.683	0.857	1	1	
1,2,3,7,8-PeCDD	ND	0.283	4.28	1	1	
1,2,3,6,7,8-HxCDD	ND	0.280	4.28	1	0.1	
1,2,3,4,7,8-HxCDD	ND	0.316	4.28	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.297	4.28	1	0.1	
1,2,3,4,6,7,8-HpCDD	**4.99**	0.422	4.28	1	0.01	0.0499
OCDD	**47.9**	1.18	8.57	1	0.0003	0.0144
2,3,7,8-TCDF	ND	0.808	0.857	1	0.1	
1,2,3,7,8-PeCDF	ND	0.445	4.28	1	0.03	
2,3,4,7,8-PeCDF	ND	0.236	4.28	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.227	4.28	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.336	4.28	1	0.1	
1,2,3,4,7,8-HxCDF	**0.349**	0.237	4.28	1	0.1	0.0349
2,3,4,6,7,8-HxCDF	ND	0.213	4.28	1	0.1	
1,2,3,4,6,7,8-HpCDF	**4.84**	0.368	4.28	1	0.01	0.0484
1,2,3,4,7,8,9-HpCDF	**0.724**	0.455	4.28	1	0.01	0.00724
OCDF	**59.6**	0.737	8.57	1	0.0003	0.0179
		Total TEQ				0.173

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:55
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940003 (High 4A)	**Units:**	Percent
Lab Code:	E2200923-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.164g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	58.3		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:58
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940004 (High 4B)	**Units:**	ng/Kg
Lab Code:	E2200923-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:55
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539772	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.375	0.859			1
1,2,3,7,8-PeCDD	ND	U	0.253	4.29			1
1,2,3,6,7,8-HxCDD	0.483**JK**		0.0497	4.29	0.73	1.001	1
1,2,3,4,7,8-HxCDD	0.298**JK**		0.0559	4.29	0.92	1.000	1
1,2,3,7,8,9-HxCDD	0.385**JK**		0.0526	4.29	0.96	1.007	1
1,2,3,4,6,7,8-HpCDD	12.4		0.118	4.29	1.08	1.000	1
OCDD	216		0.913	8.59	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.498	0.859			1
1,2,3,7,8-PeCDF	ND	U	0.420	4.29			1
2,3,4,7,8-PeCDF	ND	U	0.227	4.29			1
1,2,3,6,7,8-HxCDF	0.519**JK**		0.0876	4.29	1.44	1.000	1
1,2,3,7,8,9-HxCDF	0.436**BJK**		0.123	4.29	1.53	1.000	1
1,2,3,4,7,8-HxCDF	1.14**JK**		0.0912	4.29	0.91	1.000	1
2,3,4,6,7,8-HxCDF	0.323**BJ**		0.0773	4.29	1.41	1.000	1
1,2,3,4,6,7,8-HpCDF	17.1		0.149	4.29	0.91	1.000	1
1,2,3,4,7,8,9-HpCDF	1.84**JK**		0.173	4.29	0.75	1.000	1
OCDF	352		1.10	8.59	0.81	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:58
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940004 (High 4B)	**Units:**	ng/Kg
Lab Code:	E2200923-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:55
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539772	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.375	0.859			1
Total Penta-Dioxins	0.377**J**		0.253	4.29	1.39		1
Total Hexa-Dioxins	3.60**J**		0.0524	4.29	1.39		1
Total Hepta-Dioxins	28.9		0.118	4.29	0.97		1
Total Tetra-Furans	ND	U	0.498	0.859			1
Total Penta-Furans	ND	U	0.297	4.29			1
Total Hexa-Furans	1.10**J**		0.0923	4.29	1.07		1
Total Hepta-Furans	18.2		0.160	4.29	0.91		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:58
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940004 (High 4B)	**Units:**	Percent
Lab Code:	E2200923-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/21/22 06:55
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539772	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539767

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	526.998	26	**Y**	40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	600.725	30	**Y**	40-135	1.60	1.202
13C-1,2,3,4,7,8-HxCDD	2000	631.043	32	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	716.565	36	**Y**	40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	621.169	31	**Y**	40-135	1.06	1.067
13C-OCDD	4000	941.603	24	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	449.175	22	**Y**	40-135	0.77	0.992
13C-1,2,3,7,8-PeCDF	2000	580.764	29	**Y**	40-135	1.59	1.157
13C-2,3,4,7,8-PeCDF	2000	1053.171	53		40-135	1.57	1.192
13C-1,2,3,4,7,8-HxCDF	2000	648.694	32	**Y**	40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	651.535	33	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	594.185	30	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	789.480	39	**Y**	40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	512.807	26	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	578.749	29	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	278.938	35	**Y**	40-135	NA	1.024

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:58
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940004 (High 4B)	**Units:**	ng/Kg
Lab Code:	E2200923-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.375	0.859	1	1	
1,2,3,7,8-PeCDD	ND	0.253	4.29	1	1	
1,2,3,6,7,8-HxCDD	**0.483**	0.0497	4.29	1	0.1	0.0483
1,2,3,4,7,8-HxCDD	**0.298**	0.0559	4.29	1	0.1	0.0298
1,2,3,7,8,9-HxCDD	**0.385**	0.0526	4.29	1	0.1	0.0385
1,2,3,4,6,7,8-HpCDD	**12.4**	0.118	4.29	1	0.01	0.124
OCDD	**216**	0.913	8.59	1	0.0003	0.0648
2,3,7,8-TCDF	ND	0.498	0.859	1	0.1	
1,2,3,7,8-PeCDF	ND	0.420	4.29	1	0.03	
2,3,4,7,8-PeCDF	ND	0.227	4.29	1	0.3	
1,2,3,6,7,8-HxCDF	**0.519**	0.0876	4.29	1	0.1	0.0519
1,2,3,7,8,9-HxCDF	**0.436**	0.123	4.29	1	0.1	0.0436
1,2,3,4,7,8-HxCDF	**1.14**	0.0912	4.29	1	0.1	0.114
2,3,4,6,7,8-HxCDF	**0.323**	0.0773	4.29	1	0.1	0.0323
1,2,3,4,6,7,8-HpCDF	**17.1**	0.149	4.29	1	0.01	0.171
1,2,3,4,7,8,9-HpCDF	**1.84**	0.173	4.29	1	0.01	0.0184
OCDF	**352**	1.10	8.59	1	0.0003	0.106
		Total TEQ				0.843

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:58
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940004 (High 4B)	**Units:**	Percent
Lab Code:	E2200923-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.0859g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	56.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940005 (High 5A)	**Units:**	ng/Kg
Lab Code:	E2200923-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 19:13
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.129g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539733	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.329	0.894			1
1,2,3,7,8-PeCDD	ND	U	0.365	4.47			1
1,2,3,6,7,8-HxCDD	0.356**JK**		0.236	4.47	1.00	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.263	4.47			1
1,2,3,7,8,9-HxCDD	ND	U	0.249	4.47			1
1,2,3,4,6,7,8-HpCDD	6.56		0.270	4.47	1.03	1.000	1
OCDD	105		1.11	8.94	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.447	0.894			1
1,2,3,7,8-PeCDF	ND	U	0.316	4.47			1
2,3,4,7,8-PeCDF	ND	U	0.177	4.47			1
1,2,3,6,7,8-HxCDF	ND	U	0.308	4.47			1
1,2,3,7,8,9-HxCDF	ND	U	0.458	4.47			1
1,2,3,4,7,8-HxCDF	0.623**JK**		0.322	4.47	1.76	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.288	4.47			1
1,2,3,4,6,7,8-HpCDF	6.88**K**		0.294	4.47	0.87	1.000	1
1,2,3,4,7,8,9-HpCDF	0.990**BJ**		0.344	4.47	0.95	1.000	1
OCDF	119		0.844	8.94	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940005 (High 5A)	**Units:**	ng/Kg
Lab Code:	E2200923-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 19:13
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.129g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539733	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.329	0.894			1
Total Penta-Dioxins	ND	U	0.365	4.47			1
Total Hexa-Dioxins	ND	U	0.249	4.47			1
Total Hepta-Dioxins	15.8		0.270	4.47	1.00		1
Total Tetra-Furans	ND	U	0.447	0.894			1
Total Penta-Furans	ND	U	0.229	4.47			1
Total Hexa-Furans	0.801**J**		0.335	4.47	1.36		1
Total Hepta-Furans	9.06		0.318	4.47	0.91		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940005 (High 5A)	**Units:**	Percent
Lab Code:	E2200923-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 19:13
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.129g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539733	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	927.822	46		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	875.139	44		40-135	1.55	1.201
13C-1,2,3,4,7,8-HxCDD	2000	778.737	39	**Y**	40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	903.123	45		40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	746.271	37	**Y**	40-135	1.09	1.067
13C-OCDD	4000	1069.532	27	**Y**	40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	836.276	42		40-135	0.80	0.991
13C-1,2,3,7,8-PeCDF	2000	898.531	45		40-135	1.57	1.156
13C-2,3,4,7,8-PeCDF	2000	1549.384	77		40-135	1.56	1.191
13C-1,2,3,4,7,8-HxCDF	2000	851.519	43		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	840.661	42		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	760.849	38	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	974.896	49		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	636.945	32	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	713.580	36	**Y**	40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	446.399	56		40-135	NA	1.024

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940005 (High 5A)	**Units:**	ng/Kg
Lab Code:	E2200923-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.329	0.894	1	1	
1,2,3,7,8-PeCDD	ND	0.365	4.47	1	1	
1,2,3,6,7,8-HxCDD	**0.356**	0.236	4.47	1	0.1	0.0356
1,2,3,4,7,8-HxCDD	ND	0.263	4.47	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.249	4.47	1	0.1	
1,2,3,4,6,7,8-HpCDD	**6.56**	0.270	4.47	1	0.01	0.0656
OCDD	**105**	1.11	8.94	1	0.0003	0.0315
2,3,7,8-TCDF	ND	0.447	0.894	1	0.1	
1,2,3,7,8-PeCDF	ND	0.316	4.47	1	0.03	
2,3,4,7,8-PeCDF	ND	0.177	4.47	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.308	4.47	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.458	4.47	1	0.1	
1,2,3,4,7,8-HxCDF	**0.623**	0.322	4.47	1	0.1	0.0623
2,3,4,6,7,8-HxCDF	ND	0.288	4.47	1	0.1	
1,2,3,4,6,7,8-HpCDF	**6.88**	0.294	4.47	1	0.01	0.0688
1,2,3,4,7,8,9-HpCDF	**0.990**	0.344	4.47	1	0.01	0.00990
OCDF	**119**	0.844	8.94	1	0.0003	0.0357
		Total TEQ				0.309

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:05
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940005 (High 5A)	**Units:**	Percent
Lab Code:	E2200923-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.4216g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	55.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:12
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940006 (High 5B)	**Units:**	ng/Kg
Lab Code:	E2200923-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:01
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.183g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539734	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.332	0.894			1
1,2,3,7,8-PeCDD	ND	U	0.193	4.47			1
1,2,3,6,7,8-HxCDD	ND	U	0.180	4.47			1
1,2,3,4,7,8-HxCDD	ND	U	0.197	4.47			1
1,2,3,7,8,9-HxCDD	ND	U	0.188	4.47			1
1,2,3,4,6,7,8-HpCDD	3.73**JK**		0.291	4.47	0.81	1.000	1
OCDD	61.1		0.729	8.94	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.459	0.894			1
1,2,3,7,8-PeCDF	ND	U	0.266	4.47			1
2,3,4,7,8-PeCDF	ND	U	0.160	4.47			1
1,2,3,6,7,8-HxCDF	ND	U	0.161	4.47			1
1,2,3,7,8,9-HxCDF	ND	U	0.220	4.47			1
1,2,3,4,7,8-HxCDF	0.232**BJK**		0.163	4.47	0.49	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.155	4.47			1
1,2,3,4,6,7,8-HpCDF	3.01**J**		0.227	4.47	0.95	1.000	1
1,2,3,4,7,8,9-HpCDF	0.354**BJK**		0.265	4.47	0.71	1.000	1
OCDF	31.4		0.510	8.94	0.81	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:12
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940006 (High 5B)	**Units:**	ng/Kg
Lab Code:	E2200923-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:01
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.183g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539734	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.332	0.894			1
Total Penta-Dioxins	ND	U	0.193	4.47			1
Total Hexa-Dioxins	1.54**J**		0.188	4.47	1.29		1
Total Hepta-Dioxins	6.13		0.291	4.47	0.97		1
Total Tetra-Furans	ND	U	0.459	0.894			1
Total Penta-Furans	ND	U	0.201	4.47			1
Total Hexa-Furans	0.892**J**		0.172	4.47	1.14		1
Total Hepta-Furans	8.40		0.245	4.47	0.95		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:12
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940006 (High 5B)	**Units:**	Percent
Lab Code:	E2200923-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 20:01
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.183g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539734	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1037.374	52		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	981.572	49		40-135	1.62	1.202
13C-1,2,3,4,7,8-HxCDD	2000	936.706	47		40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1024.743	51		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	919.165	46		40-135	1.06	1.067
13C-OCDD	4000	1419.569	35	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	854.669	43		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1037.595	52		40-135	1.61	1.156
13C-2,3,4,7,8-PeCDF	2000	1686.200	84		40-135	1.60	1.191
13C-1,2,3,4,7,8-HxCDF	2000	978.929	49		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	984.013	49		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	928.786	46		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1107.009	55		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	776.857	39	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	873.787	44		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	389.547	49		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:12
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940006 (High 5B)	**Units:**	ng/Kg
Lab Code:	E2200923-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.332	0.894	1	1	
1,2,3,7,8-PeCDD	ND	0.193	4.47	1	1	
1,2,3,6,7,8-HxCDD	ND	0.180	4.47	1	0.1	
1,2,3,4,7,8-HxCDD	ND	0.197	4.47	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.188	4.47	1	0.1	
1,2,3,4,6,7,8-HpCDD	**3.73**	0.291	4.47	1	0.01	0.0373
OCDD	**61.1**	0.729	8.94	1	0.0003	0.0183
2,3,7,8-TCDF	ND	0.459	0.894	1	0.1	
1,2,3,7,8-PeCDF	ND	0.266	4.47	1	0.03	
2,3,4,7,8-PeCDF	ND	0.160	4.47	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.161	4.47	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.220	4.47	1	0.1	
1,2,3,4,7,8-HxCDF	**0.232**	0.163	4.47	1	0.1	0.0232
2,3,4,6,7,8-HxCDF	ND	0.155	4.47	1	0.1	
1,2,3,4,6,7,8-HpCDF	**3.01**	0.227	4.47	1	0.01	0.0301
1,2,3,4,7,8,9-HpCDF	**0.354**	0.265	4.47	1	0.01	0.00354
OCDF	**31.4**	0.510	8.94	1	0.0003	0.00942
		Total TEQ				0.122

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	09/21/22 09:12
Sample Matrix:	Soil	**Date Received:**	09/27/22 14:58
Sample Name:	3264940006 (High 5B)	**Units:**	Percent
Lab Code:	E2200923-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/21/22 11:10
	5.3911g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	54.9		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.115	0.496			1
1,2,3,7,8-PeCDD	ND	U	0.0579	2.48			1
1,2,3,6,7,8-HxCDD	ND	U	0.0480	2.48			1
1,2,3,4,7,8-HxCDD	ND	U	0.0546	2.48			1
1,2,3,7,8,9-HxCDD	ND	U	0.0511	2.48			1
1,2,3,4,6,7,8-HpCDD	0.189**JK**		0.0424	2.48	0.74	1.000	1
OCDD	0.436**JK**		0.106	4.96	0.67	1.000	1
2,3,7,8-TCDF	ND	U	0.199	0.496			1
1,2,3,7,8-PeCDF	ND	U	0.0659	2.48			1
2,3,4,7,8-PeCDF	ND	U	0.0397	2.48			1
1,2,3,6,7,8-HxCDF	0.0515**J**		0.0219	2.48	1.15	1.001	1
1,2,3,7,8,9-HxCDF	0.0985**JK**		0.0318	2.48	0.89	1.001	1
1,2,3,4,7,8-HxCDF	0.0532**J**		0.0234	2.48	1.19	1.001	1
2,3,4,6,7,8-HxCDF	0.0428**J**		0.0214	2.48	1.35	1.000	1
1,2,3,4,6,7,8-HpCDF	0.0924**J**		0.0200	2.48	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	0.107**J**		0.0257	2.48	1.04	1.000	1
OCDF	0.273**J**		0.0850	4.96	0.94	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.115	0.496			1
Total Penta-Dioxins	ND	U	0.0579	2.48			1
Total Hexa-Dioxins	ND	U	0.0510	2.48			1
Total Hepta-Dioxins	0.165**J**		0.0424	2.48	0.89		1
Total Tetra-Furans	ND	U	0.199	0.496			1
Total Penta-Furans	ND	U	0.0501	2.48			1
Total Hexa-Furans	0.186**J**		0.0240	2.48	1.32		1
Total Hepta-Furans	0.199**J**		0.0227	2.48	0.99		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200432-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/18/22 18:06
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539703	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1416.529	71		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1362.405	68		40-135	1.59	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1222.307	61		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1479.849	74		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1303.371	65		40-135	1.06	1.067
13C-OCDD	4000	2307.930	58		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	1096.466	55		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1385.811	69		40-135	1.56	1.156
13C-2,3,4,7,8-PeCDF	2000	2195.157	110		40-135	1.57	1.190
13C-1,2,3,4,7,8-HxCDF	2000	1318.052	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1381.234	69		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1257.628	63		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1505.711	75		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1180.359	59		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1166.262	58		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	419.499	52		40-135	NA	1.024

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Analyzed:**	10/19/22
Sample Matrix:	Soil	**Date Extracted:**	09/28/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	782082

	Lab Control Sample EQ2200432-02			Duplicate Lab Control Sample EQ2200432-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	106	99.1	107	104	98.6	105	70-130	2	25
1,2,3,4,7,8-HxCDD	95.4	99.1	96	95.3	98.6	97	70-130	<1	25
1,2,3,6,7,8-HxCDD	86.0	99.1	87	85.2	98.6	86	70-130	<1	25
1,2,3,7,8,9-HxCDD	89.3	99.1	90	87.3	98.6	89	70-130	2	25
1,2,3,7,8-PeCDD	89.6	99.1	90	90.2	98.6	91	70-130	<1	25
2,3,7,8-TCDD	15.2	19.8	76	14.4	19.7	73	70-130	5	25
OCDD	221	198	111	219	197	111	70-130	<1	25
1,2,3,4,6,7,8-HpCDF	93.2	99.1	94	102	98.6	103	70-130	9	25
1,2,3,4,7,8,9-HpCDF	85.8	99.1	87	87.3	98.6	89	70-130	2	25
1,2,3,4,7,8-HxCDF	81.0	99.1	82	81.4	98.6	83	70-130	<1	25
1,2,3,6,7,8-HxCDF	87.2	99.1	88	88.8	98.6	90	70-130	2	25
1,2,3,7,8,9-HxCDF	81.5	99.1	82	83.2	98.6	84	70-130	2	25
1,2,3,7,8-PeCDF	82.5	99.1	83	84.5	98.6	86	70-130	2	25
2,3,4,6,7,8-HxCDF	73.2	99.1	74	74.6	98.6	76	70-130	2	25
2,3,4,7,8-PeCDF	80.3	99.1	81	80.3	98.6	81	70-130	<1	25
2,3,7,8-TCDF	18.4	19.8	93	17.6	19.7	89	70-130	4	25
OCDF	206	198	104	251	197	127	70-130	20	25

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.2		0.250	0.496	0.74	1.001	1
1,2,3,7,8-PeCDD	89.6		0.0935	2.48	1.60	1.001	1
1,2,3,6,7,8-HxCDD	86.0		0.0824	2.48	1.30	1.000	1
1,2,3,4,7,8-HxCDD	95.4		0.0949	2.48	1.27	1.000	1
1,2,3,7,8,9-HxCDD	89.3		0.0883	2.48	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	106		0.133	2.48	1.08	1.000	1
OCDD	221		0.604	4.96	0.88	1.000	1
2,3,7,8-TCDF	18.4		0.297	0.496	0.72	1.001	1
1,2,3,7,8-PeCDF	82.5		0.350	2.48	1.48	1.001	1
2,3,4,7,8-PeCDF	80.3		0.308	2.48	1.50	1.001	1
1,2,3,6,7,8-HxCDF	87.2		0.0970	2.48	1.19	1.000	1
1,2,3,7,8,9-HxCDF	81.5		0.125	2.48	1.21	1.000	1
1,2,3,4,7,8-HxCDF	81.0		0.0922	2.48	1.16	1.000	1
2,3,4,6,7,8-HxCDF	73.2		0.0816	2.48	1.12	1.000	1
1,2,3,4,6,7,8-HpCDF	93.2		0.261	2.48	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	85.8		0.315	2.48	0.98	1.000	1
OCDF	206		0.338	4.96	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.250	0.496	0.74		1
Total Penta-Dioxins	89.6		0.0935	2.48	1.60		1
Total Hexa-Dioxins	271		0.0881	2.48	1.27		1
Total Hepta-Dioxins	112		0.133	2.48	1.16		1
Total Tetra-Furans	18.4		0.297	0.496	0.72		1
Total Penta-Furans	163		0.328	2.48	1.48		1
Total Hexa-Furans	323		0.0969	2.48	1.16		1
Total Hepta-Furans	189		0.287	2.48	0.98		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200432-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 22:26
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.087g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539737	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539726

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	960.480	48		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1246.614	62		40-135	1.62	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1425.066	71		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1674.563	84		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1448.269	72		40-135	1.05	1.067
13C-OCDD	4000	2352.184	59		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	783.299	39	**Y**	40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1204.089	60		40-135	1.60	1.156
13C-2,3,4,7,8-PeCDF	2000	1349.061	67		40-135	1.62	1.191
13C-1,2,3,4,7,8-HxCDF	2000	1521.205	76		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1381.483	69		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1436.295	72		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1763.113	88		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1285.936	64		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1382.826	69		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	328.607	41		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	14.4		0.214	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	90.2		0.107	2.46	1.60	1.001	1
1,2,3,6,7,8-HxCDD	85.2		0.0556	2.46	1.26	1.000	1
1,2,3,4,7,8-HxCDD	95.3		0.0617	2.46	1.27	1.000	1
1,2,3,7,8,9-HxCDD	87.3		0.0585	2.46	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	104		0.263	2.46	1.06	1.000	1
OCDD	219		0.474	4.93	0.89	1.000	1
2,3,7,8-TCDF	17.6		0.376	0.493	0.67	1.001	1
1,2,3,7,8-PeCDF	84.5		0.301	2.46	1.47	1.001	1
2,3,4,7,8-PeCDF	80.3		0.254	2.46	1.48	1.000	1
1,2,3,6,7,8-HxCDF	88.8		0.206	2.46	1.15	1.000	1
1,2,3,7,8,9-HxCDF	83.2		0.249	2.46	1.20	1.000	1
1,2,3,4,7,8-HxCDF	81.4		0.194	2.46	1.20	1.000	1
2,3,4,6,7,8-HxCDF	74.6		0.172	2.46	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	102		1.04	2.46	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	87.3		1.20	2.46	1.03	1.000	1
OCDF	251		0.839	4.93	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	14.4		0.214	0.493	0.73		1
Total Penta-Dioxins	90.3		0.107	2.46	1.60		1
Total Hexa-Dioxins	268		0.0584	2.46	1.27		1
Total Hepta-Dioxins	111		0.263	2.46	1.04		1
Total Tetra-Furans	17.6		0.376	0.493	0.67		1
Total Penta-Furans	165		0.276	2.46	1.47		1
Total Hexa-Furans	329		0.202	2.46	1.20		1
Total Hepta-Furans	200		1.11	2.46	0.99		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200923
Project:	3264940	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200432-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/19/22 00:33
Prep Method:	Method	**Date Extracted:**	9/28/22
Sample Amount:	10.144g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539711	**Blank File Name:**	P539703
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539700

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	956.753	48		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1378.746	69		40-135	1.61	1.201
13C-1,2,3,4,7,8-HxCDD	2000	1504.502	75		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1691.513	85		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1548.613	77		40-135	1.05	1.067
13C-OCDD	4000	2648.285	66		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	801.003	40		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1270.218	64		40-135	1.59	1.156
13C-2,3,4,7,8-PeCDF	2000	1485.878	74		40-135	1.59	1.191
13C-1,2,3,4,7,8-HxCDF	2000	1484.182	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1354.693	68		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1452.866	73		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1746.948	87		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1304.527	65		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1429.412	71		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	312.119	39	**Y**	40-135	NA	1.024

Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/20/22

Field Team Leader(s): MM
Field Crew: DJN, CCB
Station ID #: HUDRIVM 5
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0908 - 0930
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 55 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HUMT 5 Coring Time: 0922 Penetration Depth: 10' ft. Core Recovery: 9'7" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HUMT 5
Lat / N: 41.707601492 N
Lon / E: -73.945602521 W
PDOP or SVs: 17

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

HAD TO MOVE SOUTH BECAUSE OF CABLE CROSSING

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** Task 10
Site Name: Hudson River		**Task #:** 24711.001
City: Poughkeepsie	**State:** NY	**Date:** 9/20/22

Field Team Leader(s): MM
Field Crew: DJN CCB
Station ID #: H1W-H1W14
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1000 - 1035
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 56 ft. Tide: Ebb Flood Low Slack (High Slack) Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: H1W14 Coring Time: 1020 Penetration Depth: 10 ft. Core Recovery: 9'6" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: H1W14
Lat / N: 41.710378 43
Lon / E:W 73.944871 47
PDOP or SVs: 9

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/20/21

Field Team Leader(s): MV
Field Crew: DJV CCB
Station ID #: HIGHLAND 1
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MV
Arrival & Departure Times: 1055 – 1119
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): Calm

FIELD DATA

Water Depth: 58 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HIGHLT 1 Coring Time: 1106 Penetration Depth: 10 ft. Core Recovery: 9'7" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MV
File Name: HIGHLT1
Lat / N: 41.712846 29 N
Lon / E: 73.944114 18 W
PDOP or (SVs): 9

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

NORTH HAD TO MOVE DUE TO GAS PIPELINE CROSSING

Feet of Tubing

Preparer's Initial: MV

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/20/22

Field Team Leader(s): MM
Field Crew: DM CW
Station ID #: HIGHLAND 3
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1135 - 1209
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 5-10 E

FIELD DATA

Water Depth: 55 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HIGH 3 Coring Time: 1144 Penetration Depth: 2 ft. Core Recovery: 2 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: HIGH 3 Coring Time: 1203 Penetration Depth: 10 ft. Core Recovery: 9 4/4 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HIGH 3
Lat / N:
Lon / E:
PDOP or SVs:

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

PUSH #1 WOODY DEBRIS ON BOTTOM

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name:	**CHPE Hudson River**		**Proj. #:** 24711.001
Site Name:	**Hudson River**		**Task #:** 10
City:	**Poughkeepsie**	**State:** **NY**	**Date:** 9/20/22

Field Team Leader(s): MM
Field Team Safety Coordinator: MM
Field Crew: DJN CCB
Arrival & Departure Times: 1224 - 1250
Station ID #: HIGHLAND 2
Weather: Clear (Cloudy) Rain Temp —
Photos: Y (N) File Name: —
Wind Conditions (Speed/Direction): 10-15 E

FIELD DATA

Water Depth: 54 ft. Tide: (Ebb) Flood Low Slack High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: HILH 2 Coring Time: 1237 Penetration Depth: 10' ft. Core Recovery: 9'9" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HILH2
(Lat) / N: 41.71566021
(Lon) / E: 73.94321754
PDOP or (SVs): 12

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

North

Feet of Tubing 10

Preparer's Initial: MM

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/21/22 Time 0900

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	HIGH 5	SHEET 1 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : ~~Mini~~-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : .55
START : 0900 END : 0933 LOGGER : MKM

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous throughout very soft to soft very wet to wet GLEY 1 3/10Y medium plasticity cohesive Silty clay no odor no sheen	High 5 A voa taken at 2 feet at 0905 2 x 8 oz jars 1 VOA Kit
4					↓	High 5 B voa taken at 6.5 feet at 0912 2 x 8 oz JAR 1 VOA KIT
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/21/22 Time 0945

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	High 4	SHEET 2 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 56
START : 0945 END : 1020 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity Cohesive Silty clay no odor no sheen	High 4 A VOA taken at 2 feet at 0955 2 x 8oz jars 1 VOA Kit
4					↓	High 4 B VOA taken at 6.5 feet at 0958 2 x 8 oz. jars 1 VOA Kit
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/21/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	High 1	SHEET 3 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : ~~4~~ 8 5 8
START : 1030 END : 1100 LOGGER : BJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous throughout Very ~~soft~~ to soft very wet to wet GLEY 1/3/10Y medium plasticity cohesive Silty clay no odor no sheen	High 1 A voa taken at 2 feet at 1030 2 x 8 oz. jars 1 voa kit
4					↓	High 1 B Voa taken at 6.5 feet at 1035 2 x 8 oz. jars 1 VOA kit
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/21/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	High 3	SHEET 4 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 5.5
START : 1110 END : 1140 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity Cohesive Silty clay no odor no sheen	High 3 A VOA taken at 2 feet at 1120 2x 8 oz. jars 1 VOA kit
4					↓	High 3B VOA taken at 6.5 feet at 1125 2x 8 oz jars 1 VOA kit
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/21/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	HIGH 2	SHEET 5 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : NE
START : 1155 END : 1240 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity Cohesive Silty Clay no odor no sheen	High ~~1~~ 2A VOA taken at 2 feet at 1200 2 x 8 oz jars 1 VOA kit
4					↓	High 2B VOA taken at 6.5 feet at 1205 2 x 8 oz. jars 1 VOA kit
9						

Sediment Core Photos

CHPE Hudson River
Location - Highland
Soil Boring Pictures
Project No. 24711.001, Task 10


HIGH 5
Top
Bottom


HIGH 5
Top
Bottom


HIGH 5
Top
Bottom

HIGH 4
Top
Bottom


HIGH 4
Top
Bottom

HIGH 4
Top
Bottom


High 1
Top
Bottom


High 1
Top
Bottom


High 1
Top
Bottom

High 3
Top
Bottom


High 3
Top
Bottom


High 3
Top
Bottom

HIGH 2
Top
Bottom


HIGH 2
Top
Bottom


HIGH 2
Top
Bottom

Attachment B

Poughkeepsie Sediment Cores

Laboratory Results

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project CHPE Hudson River
Workorder 3265451
Report ID 208934 on 11/23/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 24, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3265451001	POUGH 1A	Solid	09/23/2022 11:30	09/24/2022 08:49	CBC	Collected By Client
3265451002	POUGH 1B	Solid	09/23/2022 11:45	09/24/2022 08:49	CBC	Collected By Client
3265451003	POUGH 2A	Solid	09/23/2022 09:20	09/24/2022 08:49	CBC	Collected By Client
3265451004	POUGH 2B	Solid	09/23/2022 09:30	09/24/2022 08:49	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3265451001	POUGH 1A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265451002	POUGH 1B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265451003	POUGH 2A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265451004	POUGH 2B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 11/23/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 56% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 43% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 62% in the bracketing CCV.
5	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 31% in the bracketing CCV.
6	The surrogate Decachlorobiphenyl for method SW846 8081B was outside of control limits. The % Recovery was reported as 26.9 and the control limits were 30 to 135. This result was reported at a dilution of 5.

Detected Results Summary

Client Sample ID	POUGH 1A	Collected	09/23/2022 11:30
Lab Sample ID	3265451001	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.0	mg/kg	3.3	1.1	SW846 6010D	#
Cadmium, Total	0.28J	mg/kg	0.82	0.27	SW846 6010D	#
Copper, Total	14.9	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	14.4	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.064J	mg/kg	0.092	0.030	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	45.8J	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(a)pyrene	54.7J	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(b)fluoranthene	35.3J	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(g,h,i)perylene	41.0J	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(k)fluoranthene	40.4J	ug/kg	84.4	28.7	SW846 8270D	#
Chrysene	36.1J	ug/kg	84.4	28.7	SW846 8270D	#
Fluoranthene	47.9J	ug/kg	84.4	28.7	SW846 8270D	#
Phenanthrene	34.8J	ug/kg	84.4	28.7	SW846 8270D	#
Pyrene	68.3J	ug/kg	84.4	28.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	47.1	%	0.1	0.01	S2540G-11	#
Total Solids	52.9	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 1B	Collected	09/23/2022 11:45
Lab Sample ID	3265451002	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.3	mg/kg	3.2	1.1	SW846 6010D	#
Copper, Total	12.2	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	10	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.036J	mg/kg	0.083	0.026	SW846 7471B	#
SEMIVOLATILES						
Chrysene	26.1J	ug/kg	72.7	24.7	SW846 8270D	#
Pyrene	38.9J	ug/kg	72.7	24.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.7	%	0.1	0.01	S2540G-11	#
Total Solids	60.3	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 2A	Collected	09/23/2022 09:20
Lab Sample ID	3265451003	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.6	mg/kg	3.4	1.1	SW846 6010D	#
Cadmium, Total	0.78J	mg/kg	0.85	0.28	SW846 6010D	#
Copper, Total	24.5	mg/kg	3.4	1.1	SW846 6010D	#
Lead, Total	28.1	mg/kg	3.4	1.1	SW846 6010D	#
Mercury, Total	0.14	mg/kg	0.081	0.026	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	43.6J	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(a)pyrene	47.7J	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(b)fluoranthene	36.6J	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(g,h,i)perylene	33.0J	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(k)fluoranthene	42.9J	ug/kg	77.4	26.3	SW846 8270D	#
Chrysene	47.9J	ug/kg	77.4	26.3	SW846 8270D	#
Fluoranthene	62.2J	ug/kg	77.4	26.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	34.3J	ug/kg	77.4	26.3	SW846 8270D	#
Phenanthrene	35.2J	ug/kg	77.4	26.3	SW846 8270D	#
Pyrene	65.1J	ug/kg	77.4	26.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	45.3	%	0.1	0.01	S2540G-11	#
Total Solids	54.7	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 2B	Collected	09/23/2022 09:30
Lab Sample ID	3265451004	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.7	mg/kg	3.4	1.1	SW846 6010D	#
Copper, Total	11.2	mg/kg	3.4	1.1	SW846 6010D	#
Lead, Total	9.4	mg/kg	3.4	1.1	SW846 6010D	#
Mercury, Total	0.035J	mg/kg	0.077	0.025	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	42.2	%	0.1	0.01	S2540G-11	#
Total Solids	57.8	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	POUGH 1A	Collected	09/23/2022 11:30
Lab Sample ID	3265451001	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.0	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:43	A1S	E1
Cadmium, Total	0.28J	J,S1	mg/kg	0.82	0.27	SW846 6010D	1	10/18/2022 16:43	A1S	E1
Copper, Total	14.9	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:43	A1S	E1
Lead, Total	14.4	S1	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:43	A1S	E1
Mercury, Total	0.064J	J,S1	mg/kg	0.092	0.030	SW846 7471B	1	09/28/2022 14:26	WDA	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1	ug/kg	15.7	10.1	SW846 8081B	5	10/05/2022 05:06	KJH	E
4,4'-DDE	ND	ND,3,S1	ug/kg	15.7	5.1	SW846 8081B	5	10/05/2022 05:06	KJH	E
4,4'-DDT	ND	ND,4,S1	ug/kg	15.7	4.5	SW846 8081B	5	10/05/2022 05:06	KJH	E
Chlordane	ND	ND,S1	ug/kg	322	54.3	SW846 8081B	5	10/05/2022 05:06	KJH	E
Dieldrin	ND	ND,5,S1	ug/kg	15.7	6.1	SW846 8081B	5	10/05/2022 05:06	KJH	E
Mirex	ND	ND,S1	ug/kg	15.7	4.9	SW846 8081B	5	10/05/2022 05:06	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	59.5%	30 – 135	10/05/2022 05:06	
Tetrachloro-m-xylene	877-09-8	64.1%	30 – 111	10/05/2022 05:06	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Acenaphthylene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Anthracene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Benzo(a)anthracene	45.8J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Benzo(a)pyrene	54.7J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Benzo(b)fluoranthene	35.3J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Benzo(g,h,i)perylene	41.0J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Benzo(k)fluoranthene	40.4J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Chrysene	36.1J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Fluoranthene	47.9J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Fluorene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Naphthalene	ND	ND,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Phenanthrene	34.8J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E
Pyrene	68.3J	J,S1	ug/kg	84.4	28.7	SW846 8270D	1	09/27/2022 10:20	S7M	E

Results

Client Sample ID	POUGH 1A	Collected	09/23/2022 11:30
Lab Sample ID	3265451001	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	52.1%	19 – 132	09/27/2022 10:20	
2-Fluorobiphenyl	321-60-8	49.7%	40 – 110	09/27/2022 10:20	
2-Fluorophenol	367-12-4	45.3%	26 – 116	09/27/2022 10:20	
Nitrobenzene-d5	4165-60-0	49.5%	38 – 112	09/27/2022 10:20	
Phenol-d5	4165-62-2	47.6%	35 – 111	09/27/2022 10:20	
Terphenyl-d14	98904-43-9	55.9%	45 – 126	09/27/2022 10:20	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	11/23/2022 10:44	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	3.8	0.94	SW846 8260C	1	09/27/2022 13:58	TMP	B
Ethylbenzene	ND	ND,S1	ug/kg	3.8	1.3	SW846 8260C	1	09/27/2022 13:58	TMP	B
Toluene	ND	ND,S1	ug/kg	3.8	1.3	SW846 8260C	1	09/27/2022 13:58	TMP	B
Total Xylenes	ND	ND,S1	ug/kg	11.3	2.6	SW846 8260C	1	09/27/2022 13:58	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.8%	56 – 124	09/27/2022 13:58	
4-Bromofluorobenzene	460-00-4	93.2%	51 – 128	09/27/2022 13:58	
Dibromofluoromethane	1868-53-7	104%	62 – 123	09/27/2022 13:58	
Toluene-d8	2037-26-5	95%	59 – 131	09/27/2022 13:58	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	47.1	S1	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	52.9	S1	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 1B	Collected	09/23/2022 11:45
Lab Sample ID	3265451002	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.3	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:46	A1S	E1
Cadmium, Total	ND	ND,S2	mg/kg	0.80	0.27	SW846 6010D	1	10/18/2022 16:46	A1S	E1
Copper, Total	12.2	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:46	A1S	E1
Lead, Total	10	S2	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:46	A1S	E1
Mercury, Total	0.036J	J,S2	mg/kg	0.083	0.026	SW846 7471B	1	10/13/2022 15:04	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S2	ug/kg	13.6	8.8	SW846 8081B	5	10/05/2022 05:16	KJH	E
4,4'-DDE	ND	ND,3,S2	ug/kg	13.6	4.4	SW846 8081B	5	10/05/2022 05:16	KJH	E
4,4'-DDT	ND	ND,4,S2	ug/kg	13.6	3.9	SW846 8081B	5	10/05/2022 05:16	KJH	E
Chlordane	ND	ND,S2	ug/kg	279	47.0	SW846 8081B	5	10/05/2022 05:16	KJH	E
Dieldrin	ND	ND,5,S2	ug/kg	13.6	5.3	SW846 8081B	5	10/05/2022 05:16	KJH	E
Mirex	ND	ND,S2	ug/kg	13.6	4.2	SW846 8081B	5	10/05/2022 05:16	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	26.9*%	30 – 135	10/05/2022 05:16	6
Tetrachloro-m-xylene	877-09-8	52.6%	30 – 111	10/05/2022 05:16	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Acenaphthylene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Anthracene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Benzo(a)anthracene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Benzo(a)pyrene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Benzo(b)fluoranthene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Benzo(g,h,i)perylene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Benzo(k)fluoranthene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Chrysene	26.1J	J,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Fluoranthene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Fluorene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Naphthalene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Phenanthrene	ND	ND,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E
Pyrene	38.9J	J,S2	ug/kg	72.7	24.7	SW846 8270D	1	09/27/2022 10:45	S7M	E

Results

Client Sample ID	POUGH 1B	Collected	09/23/2022 11:45
Lab Sample ID	3265451002	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	70.4%	19 – 132	09/27/2022 10:45	
2-Fluorobiphenyl	321-60-8	67.2%	40 – 110	09/27/2022 10:45	
2-Fluorophenol	367-12-4	63%	26 – 116	09/27/2022 10:45	
Nitrobenzene-d5	4165-60-0	65.9%	38 – 112	09/27/2022 10:45	
Phenol-d5	4165-62-2	63.9%	35 – 111	09/27/2022 10:45	
Terphenyl-d14	98904-43-9	73.6%	45 – 126	09/27/2022 10:45	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	11/23/2022 10:45	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	3.3	0.84	SW846 8260C	1	09/27/2022 14:22	TMP	B
Ethylbenzene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/27/2022 14:22	TMP	B
Toluene	ND	ND,S2	ug/kg	3.3	1.1	SW846 8260C	1	09/27/2022 14:22	TMP	B
Total Xylenes	ND	ND,S2	ug/kg	10.0	2.3	SW846 8260C	1	09/27/2022 14:22	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.6%	56 – 124	09/27/2022 14:22	
4-Bromofluorobenzene	460-00-4	90.9%	51 – 128	09/27/2022 14:22	
Dibromofluoromethane	1868-53-7	105%	62 – 123	09/27/2022 14:22	
Toluene-d8	2037-26-5	96.8%	59 – 131	09/27/2022 14:22	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.7	S2	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	60.3	S2	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 2A	Collected	09/23/2022 09:20
Lab Sample ID	3265451003	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.6	S3	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:47	A1S	E1
Cadmium, Total	0.78J	J,S3	mg/kg	0.85	0.28	SW846 6010D	1	10/18/2022 16:47	A1S	E1
Copper, Total	24.5	S3	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:47	A1S	E1
Lead, Total	28.1	S3	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:47	A1S	E1
Mercury, Total	0.14	S3	mg/kg	0.081	0.026	SW846 7471B	1	10/13/2022 15:06	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3	ug/kg	14.8	9.6	SW846 8081B	5	10/05/2022 05:27	KJH	E
4,4'-DDE	ND	ND,3,S3	ug/kg	14.8	4.8	SW846 8081B	5	10/05/2022 05:27	KJH	E
4,4'-DDT	ND	ND,4,S3	ug/kg	14.8	4.3	SW846 8081B	5	10/05/2022 05:27	KJH	E
Chlordane	ND	ND,S3	ug/kg	306	51.5	SW846 8081B	5	10/05/2022 05:27	KJH	E
Dieldrin	ND	ND,5,S3	ug/kg	14.8	5.8	SW846 8081B	5	10/05/2022 05:27	KJH	E
Mirex	ND	ND,S3	ug/kg	14.8	4.6	SW846 8081B	5	10/05/2022 05:27	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.7%	30 – 135	10/05/2022 05:27	
Tetrachloro-m-xylene	877-09-8	53.2%	30 – 111	10/05/2022 05:27	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Acenaphthylene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Anthracene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Benzo(a)anthracene	43.6J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Benzo(a)pyrene	47.7J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Benzo(b)fluoranthene	36.6J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Benzo(g,h,i)perylene	33.0J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Benzo(k)fluoranthene	42.9J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Chrysene	47.9J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Fluoranthene	62.2J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Fluorene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Indeno(1,2,3-cd)pyrene	34.3J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Naphthalene	ND	ND,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Phenanthrene	35.2J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E
Pyrene	65.1J	J,S3	ug/kg	77.4	26.3	SW846 8270D	1	09/27/2022 11:10	S7M	E

Results

Client Sample ID	POUGH 2A	Collected	09/23/2022 09:20
Lab Sample ID	3265451003	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	49%	19 – 132	09/27/2022 11:10	
2-Fluorobiphenyl	321-60-8	43.6%	40 – 110	09/27/2022 11:10	
2-Fluorophenol	367-12-4	38.6%	26 – 116	09/27/2022 11:10	
Nitrobenzene-d5	4165-60-0	39.7%	38 – 112	09/27/2022 11:10	
Phenol-d5	4165-62-2	40.6%	35 – 111	09/27/2022 11:10	
Terphenyl-d14	98904-43-9	54.1%	45 – 126	09/27/2022 11:10	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	11/23/2022 10:46	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	3.0	0.75	SW846 8260C	1	09/27/2022 14:47	TMP	B
Ethylbenzene	ND	ND,S3	ug/kg	3.0	1.0	SW846 8260C	1	09/27/2022 14:47	TMP	B
Toluene	ND	ND,S3	ug/kg	3.0	1.0	SW846 8260C	1	09/27/2022 14:47	TMP	B
Total Xylenes	ND	ND,S3	ug/kg	9.0	2.1	SW846 8260C	1	09/27/2022 14:47	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.8%	56 – 124	09/27/2022 14:47	
4-Bromofluorobenzene	460-00-4	92%	51 – 128	09/27/2022 14:47	
Dibromofluoromethane	1868-53-7	106%	62 – 123	09/27/2022 14:47	
Toluene-d8	2037-26-5	94.9%	59 – 131	09/27/2022 14:47	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	45.3	S3	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	54.7	S3	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 2B	Collected	09/23/2022 09:30
Lab Sample ID	3265451004	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.7	S4	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:50	A1S	E1
Cadmium, Total	ND	ND,S4	mg/kg	0.85	0.28	SW846 6010D	1	10/18/2022 16:50	A1S	E1
Copper, Total	11.2	S4	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:50	A1S	E1
Lead, Total	9.4	S4	mg/kg	3.4	1.1	SW846 6010D	1	10/18/2022 16:50	A1S	E1
Mercury, Total	0.035J	J,S4	mg/kg	0.077	0.025	SW846 7471B	1	10/13/2022 15:07	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S4	ug/kg	14.2	9.2	SW846 8081B	5	10/05/2022 05:37	KJH	E
4,4'-DDE	ND	ND,3,S4	ug/kg	14.2	4.6	SW846 8081B	5	10/05/2022 05:37	KJH	E
4,4'-DDT	ND	ND,4,S4	ug/kg	14.2	4.1	SW846 8081B	5	10/05/2022 05:37	KJH	E
Chlordane	ND	ND,S4	ug/kg	293	49.4	SW846 8081B	5	10/05/2022 05:37	KJH	E
Dieldrin	ND	ND,5,S4	ug/kg	14.2	5.5	SW846 8081B	5	10/05/2022 05:37	KJH	E
Mirex	ND	ND,S4	ug/kg	14.2	4.4	SW846 8081B	5	10/05/2022 05:37	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	72.1%	30 – 135	10/05/2022 05:37	
Tetrachloro-m-xylene	877-09-8	70.6%	30 – 111	10/05/2022 05:37	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Acenaphthylene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Anthracene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Benzo(a)anthracene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Benzo(a)pyrene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Benzo(b)fluoranthene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Benzo(g,h,i)perylene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Benzo(k)fluoranthene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Chrysene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Fluoranthene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Fluorene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Naphthalene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Phenanthrene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E
Pyrene	ND	ND,S4	ug/kg	84.8	28.8	SW846 8270D	1	09/27/2022 11:35	S7M	E

Results

Client Sample ID	POUGH 2B	Collected	09/23/2022 09:30
Lab Sample ID	3265451004	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	71.4%	19 – 132	09/27/2022 11:35	
2-Fluorobiphenyl	321-60-8	70.5%	40 – 110	09/27/2022 11:35	
2-Fluorophenol	367-12-4	65.5%	26 – 116	09/27/2022 11:35	
Nitrobenzene-d5	4165-60-0	69.6%	38 – 112	09/27/2022 11:35	
Phenol-d5	4165-62-2	67.2%	35 – 111	09/27/2022 11:35	
Terphenyl-d14	98904-43-9	76.3%	45 – 126	09/27/2022 11:35	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	11/23/2022 10:46	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	3.6	0.90	SW846 8260C	1	09/27/2022 15:11	TMP	B
Ethylbenzene	ND	ND,S4	ug/kg	3.6	1.2	SW846 8260C	1	09/27/2022 15:11	TMP	B
Toluene	ND	ND,S4	ug/kg	3.6	1.2	SW846 8260C	1	09/27/2022 15:11	TMP	B
Total Xylenes	ND	ND,S4	ug/kg	10.8	2.5	SW846 8260C	1	09/27/2022 15:11	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.6%	56 – 124	09/27/2022 15:11	
4-Bromofluorobenzene	460-00-4	95.1%	51 – 128	09/27/2022 15:11	
Dibromofluoromethane	1868-53-7	107%	62 – 123	09/27/2022 15:11	
Toluene-d8	2037-26-5	96.8%	59 – 131	09/27/2022 15:11	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	42.2	S4	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	57.8	S4	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265451001	POUGH 1A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265451002	POUGH 1B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265451003	POUGH 2A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265451004	POUGH 2B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3265451001	POUGH 1A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	884167	09/27/2022 11:00	WDA	SW846 7471B	884713
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 11:30	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265451002	POUGH 1B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 11:45	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265451003	POUGH 2A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 09:20	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265451004	POUGH 2B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 09:30	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3265451
Logged By: AXF
PM: SSL
ALS Quote #
1 of 1

Client Name: Normandeau Associates
Address: 400 old Reading Pike
Stowe, PA 19464

Contact: Don NAZARIO
Phone#: 717-617-7076
Project Name/#: CHPE Hudson River
Bill To: NAI - DON NAZARIO
Purchase Order #: 24711.001
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X]-Y DNAZARIO@Normandeau.com

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	Container Type	Container Size	Preservative	VOCs, % moist	PAHs, Pest, Metals	Dioxins
						VOA	Glass	Glass			
						40ml	8oz	8oz			
						MeoH	UNP	UNP	AMRF 9/24/22		
						ANALYSES/METHOD REQUESTED					
						Enter Number of Containers Per Sample or Field Results Below.					
1 POUGH 1A	9/23/22	1130		G	S	4	1	1			
2 1B		1145		G	S	4	1	1			
3 2A		0920		G	S	4	1	1			
4 2B		0930		G	S	4	1	1			
5											
6											
7											
8											
9											
10											

Temp Taken By: AMRF Therm ID: 570 WO Temp (°C) 2°
Receipt Info completed by: AMRF
WV Containers 0-6°C Y N (NA)

Cooler Custody Seals Intact	Y	N	(NA)
Sample Custody Seal Intact	Y	N	(NA)
Received on Ice	(Y)	N	NA
Coolers & Samples Intact	(Y)	N	
Correct Containers Provided	(Y)	N	
Sample Label/COC Agree	(Y)	N	
Adequate Sample Volumes	(Y)	N	
VOA only: Headspace Present	Y	(N)	NA
VOA only: Trip Blank	Y	(N)	NA

Deviations? NO YES
If YES, list below:

NJ ≤ 4 days? ~~N~~
Courier/Tracking #: 7100 1235 2009

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?
PWSID #
Rad Screen (uCi)
New Source? Y N
New Source Contact:
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

SAMPLED BY (Please Print, if MD include Sampler #): DON NAZARIO

Comments: Please do not analyze for PCBs

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/23/22	1530	1	Normandeau	2	FedEx
		3	FedEx	4	AMRF/ALS 9/24/22 8:49
		5		6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 05/22

November 22, 2022 Service Request No:E2200955

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3265451

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 01, 2022
For your reference, these analyses have been assigned our service request number **E2200955.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental – Middletown	**Service Request No.:**	E2200955
Project:	3265451	**Date Received:**	10/01/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Four samples were received for analysis at ALS Environmental in Houston on 10/01/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200474: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS/DLCS recoveries passed.

B flags – Method Blanks

The Method Blank EQ2200474-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - Middletown **Service Request:**E2200955
Project: 3265451

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200955-001	3265451-001	9/23/2022	1130
E2200955-002	3265451-002	9/23/2022	1145
E2200955-003	3265451-003	9/23/2022	0920
E2200955-004	3265451-004	9/23/2022	0930

Service Request Summary

Folder #: **E2200955**
Client Name: ALS Environmental - Middletown
Project Name: 3265451
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/01/22
Internal Due Date: 11/7/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3265451
EDD: BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2C
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200955-001	3265451-001	Soil	09/23/22 1130	II	II
E2200955-002	3265451-002	Soil	09/23/22 1145	II	II
E2200955-003	3265451-003	Soil	09/23/22 0920	II	II
E2200955-004	3265451-004	Soil	09/23/22 0930	II	II

Service Request Summary

Folder #: **E2200955**
Client Name: ALS Environmental - Middletown
Project Name: 3265451
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/01/22
Internal Due Date: 11/7/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3265451
EDD: BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2C
Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22 00955 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/22/22	JC	001-004

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/22/22	SL	001-004

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3265451

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Container Type	G
Container Size	8oz
Perservative	None

ANALYSES/METHOD REQUESTED: DIOXIN METHOD 8290

Enter Number of Containers Per Sample or Field Results Below.

#	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	DIOXIN METHOD 8290										Sample/COC Comments
1	3265451001	9/23/22	1130	G	S	1										
2	3265451002	9/23/22	1145	G	S	1										
3	3265451003	9/23/22	0920	G	S	1										
4	3265451004	9/23/22	0930	G	S	1										
5																
6																
7																
8																
9																
10																

Receipt Information (completed by Receiving Lab)

W.O. Temp: 3.6 Therm ID: IR1

Courier/Tracking #:

Purchase Order #: 3265451

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor □ Composite Sampling □ Rental Equipment

Other:

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	9/28/22	1600	2 [signature]	10/1/22	0940
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist JK

Client/Project ALS-MI Thermometer ID IR21

Date/Time Received: 10/11/22 Initials: CA Date/Time Logged in: 10/11/22 Initials CA

1. Method of delivery: ◯ US Mail ☒ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client
2. Samples received in: ☒ Cooler ◯ Box ◯ Envelope ◯ Other
3. Were custody seals on coolers? ◯ Yes ☒ No
   Were they intact? ◯ Yes ◯ No ☒ N/A
   Were they signed and dated? ◯ Yes ◯ No ☒ N/A
   If yes, how many and where?
4. Packing Material: ◯ Inserts ☒ Baggies ☒ Bubble Wrap ◯ Gel Packs ☒ Wet Ice ◯ Sleeves ◯ Other
5. Foreign or Regulated Soil? ◯ Yes ◯ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 6072		10/11/22	0940	CA	3.0	☒
5857 1123 6083		10/11/22	0940	CA	3.4	☒
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ◯ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ◯ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ◯ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ◯ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ◯ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

11/23/2022 11:10 AM

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

#	Lab Code	Client ID	B#	Method /Test	pH	CI	Matrix	Amt. Ext.	Sample Description
1	E2200953-001	3265886-001 (Port Ewen 2A)	.01	8290A/PCDD PCDF			Soil	10.344g	brown mud
2	E2200953-002	3265886-002 (Port Ewen 2B)	.01	8290A/PCDD PCDF			Soil	10.057g	brown mud
3	E2200953-003	3265886-003 (Port Ewen 3A)	.01	8290A/PCDD PCDF			Soil	10.067g	brown mud
4	E2200953-004	3265886-004 (Port Ewen 3B)	.01	8290A/PCDD PCDF			Soil	10.280g	brown mud
5	E2200953-005	3265886-005 (Port Ewen 4A)	.01	8290A/PCDD PCDF			Soil	10.331g	brown mud
6	E2200953-006	3265886-006 (Port Ewen 4B)	.01	8290A/PCDD PCDF			Soil	10.187g	brown mud
7	E2200953-007	3265886-007 (Port Ewen 5A)	.01	8290A/PCDD PCDF			Soil	10.242g	brown mud
8	E2200953-008	3265886-008 (Port Ewen 5B)	.01	8290A/PCDD PCDF			Soil	10.315g	brown mud
9	E2200954-001	3265452-001 (Pough 3A)	.01	8290A/PCDD PCDF			Soil	10.046g	brown mud
10	E2200954-002	3265452-002 (Pough 3B)	.01	8290A/PCDD PCDF			Soil	10.308g	brown mud
11	E2200954-003	3265452-003 (Pough 4A)	.01	8290A/PCDD PCDF			Soil	10.137g	brown mud
12	E2200954-004	3265452-004 (Pough 4B)	.01	8290A/PCDD PCDF			Soil	10.193g	brown mud
13	E2200954-005	3265452-005 (Pough 5A)	.01	8290A/PCDD PCDF			Soil	10.318g	brown mud
14	E2200954-006	3265452-006 (Pough 5B)	.01	8290A/PCDD PCDF			Soil	10.256g	brown mud
15	E2200955-001	3265451-001	.01	8290A/PCDD PCDF			Soil	10.003g	brown mud
16	E2200955-002	3265451-002	.01	8290A/PCDD PCDF			Soil	10.377g	brown mud
17	E2200955-003	3265451-003	.01	8290A/PCDD PCDF			Soil	10.329g	brown mud
18	E2200955-004	3265451-004	.01	8290A/PCDD PCDF			Soil	10.075g	brown mud
19	EQ2200474-01	MB		8290A/PCDD PCDF			Solid	10.199g	
20	EQ2200474-02	LCS		8290A/PCDD PCDF			Solid	10.137g	
21	EQ2200474-03	DLCS		8290A/PCDD PCDF			Solid	10.135g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200474-02	100.00µL	EQ2200474-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200953-001	100.00µL	E2200953-002	100.00µL	E2200953-003	100.00µL	E2200953-004	100.00µL	E2200953-005	100.00µL	E2200953-006	100.00µL
E2200953-007	100.00µL	E2200953-008	100.00µL	E2200954-001	100.00µL	E2200954-002	100.00µL	E2200954-003	100.00µL	E2200954-004	100.00µL
E2200954-005	100.00µL	E2200954-006	100.00µL	E2200955-001	100.00µL	E2200955-002	100.00µL	E2200955-003	100.00µL	E2200955-004	100.00µL
EQ2200474-01	100.00µL	EQ2200474-02	100.00µL	EQ2200474-03	100.00µL						

Name: 1613B Labeled Working Standard Inventory ID 225489 Logbook Ref: NB 10/14/2022 225489 ng/mL Expires On: 04/10/2023

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped

Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

E2200953-001	1,000.00µL	E2200953-002	1,000.00µL	E2200953-003	1,000.00µL	E2200953-004	1,000.00µL	E2200953-005	1,000.00µL	E2200953-006	1,000.00µL
E2200953-007	1,000.00µL	E2200953-008	1,000.00µL	E2200954-001	1,000.00µL	E2200954-002	1,000.00µL	E2200954-003	1,000.00µL	E2200954-004	1,000.00µL
E2200954-005	1,000.00µL	E2200954-006	1,000.00µL	E2200955-001	1,000.00µL	E2200955-002	1,000.00µL	E2200955-003	1,000.00µL	E2200955-004	1,000.00µL
EQ2200474-01	1,000.00µL	EQ2200474-02	1,000.00µL	EQ2200474-03	1,000.00µL						

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:44	Started:	10/20/22 12:00	Started:	10/20/22 13:00	Started:	10/21/22 13:00
Finished:	10/19/22 09:00	Finished:	10/20/22 13:00	Finished:	10/20/22 16:00	Finished:	10/21/22 16:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: TW Date: 10/18/22

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-001	**Units:**	ng/Kg
Lab Code:	E2200955-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 01:13
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.003g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540033	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.331	0.929			1
1,2,3,7,8-PeCDD	0.187**JK**		0.162	4.65	1.04	1.000	1
1,2,3,6,7,8-HxCDD	1.88**J**		0.0759	4.65	1.06	1.000	1
1,2,3,4,7,8-HxCDD	0.493**BJK**		0.0868	4.65	2.59	1.000	1
1,2,3,7,8,9-HxCDD	1.34**J**		0.0811	4.65	1.40	1.007	1
1,2,3,4,6,7,8-HpCDD	30.2		0.725	4.65	1.02	1.000	1
OCDD	348		3.61	9.29	0.90	1.000	1
2,3,7,8-TCDF	0.537**JK**		0.210	0.929	0.90	1.002	1
1,2,3,7,8-PeCDF	0.312**JK**		0.219	4.65	0.96	1.001	1
2,3,4,7,8-PeCDF	0.596**JK**		0.213	4.65	1.05	1.001	1
1,2,3,6,7,8-HxCDF	0.689**JK**		0.164	4.65	0.98	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.228	4.65			1
1,2,3,4,7,8-HxCDF	0.517**JK**		0.151	4.65	0.79	1.000	1
2,3,4,6,7,8-HxCDF	0.396**JK**		0.146	4.65	1.77	1.000	1
1,2,3,4,6,7,8-HpCDF	11.9		0.120	4.65	1.05	1.000	1
1,2,3,4,7,8,9-HpCDF	0.595**BJK**		0.150	4.65	0.53	1.000	1
OCDF	35.4		1.25	9.29	0.97	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-001	**Units:**	ng/Kg
Lab Code:	E2200955-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 01:13
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.003g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540033	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.331	0.929			1
Total Penta-Dioxins	2.05**J**		0.162	4.65	1.55		1
Total Hexa-Dioxins	15.8		0.0809	4.65	1.39		1
Total Hepta-Dioxins	67.6		0.725	4.65	1.04		1
Total Tetra-Furans	1.65		0.210	0.929	0.66		1
Total Penta-Furans	ND	U	0.216	4.65			1
Total Hexa-Furans	ND	U	0.168	4.65			1
Total Hepta-Furans	23.3		0.134	4.65	1.05		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-001	**Units:**	Percent
Lab Code:	E2200955-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 01:13
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.003g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540033	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	848.436	42		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	646.766	32	**Y**	40-135	1.61	1.206
13C-1,2,3,4,7,8-HxCDD	2000	662.418	33	**Y**	40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	781.810	39	**Y**	40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	573.363	29	**Y**	40-135	1.06	1.068
13C-OCDD	4000	699.464	17	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	774.746	39	**Y**	40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	649.393	32	**Y**	40-135	1.61	1.160
13C-2,3,4,7,8-PeCDF	2000	631.588	32	**Y**	40-135	1.57	1.195
13C-1,2,3,4,7,8-HxCDF	2000	755.450	38	**Y**	40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	675.764	34	**Y**	40-135	0.53	0.973
13C-1,2,3,7,8,9-HxCDF	2000	620.805	31	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	824.659	41		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	484.313	24	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	517.373	26	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	444.821	56		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-001	**Units:**	ng/Kg
Lab Code:	E2200955-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.331	0.929	1	1	
1,2,3,7,8-PeCDD	**0.187**	0.162	4.65	1	1	0.187
1,2,3,6,7,8-HxCDD	**1.88**	0.0759	4.65	1	0.1	0.188
1,2,3,4,7,8-HxCDD	**0.493**	0.0868	4.65	1	0.1	0.0493
1,2,3,7,8,9-HxCDD	**1.34**	0.0811	4.65	1	0.1	0.134
1,2,3,4,6,7,8-HpCDD	**30.2**	0.725	4.65	1	0.01	0.302
OCDD	**348**	3.61	9.29	1	0.0003	0.104
2,3,7,8-TCDF	**0.537**	0.210	0.929	1	0.1	0.0537
1,2,3,7,8-PeCDF	**0.312**	0.219	4.65	1	0.03	0.00936
2,3,4,7,8-PeCDF	**0.596**	0.213	4.65	1	0.3	0.179
1,2,3,6,7,8-HxCDF	**0.689**	0.164	4.65	1	0.1	0.0689
1,2,3,7,8,9-HxCDF	ND	0.228	4.65	1	0.1	
1,2,3,4,7,8-HxCDF	**0.517**	0.151	4.65	1	0.1	0.0517
2,3,4,6,7,8-HxCDF	**0.396**	0.146	4.65	1	0.1	0.0396
1,2,3,4,6,7,8-HpCDF	**11.9**	0.120	4.65	1	0.01	0.119
1,2,3,4,7,8,9-HpCDF	**0.595**	0.150	4.65	1	0.01	0.00595
OCDF	**35.4**	1.25	9.29	1	0.0003	0.0106
		Total TEQ				1.50

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-001	**Units:**	Percent
Lab Code:	E2200955-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	4.9571g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	53.8		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-002	**Units:**	ng/Kg
Lab Code:	E2200955-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:02
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.377g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540034	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.204	0.868			1
1,2,3,7,8-PeCDD	ND	U	0.125	4.34			1
1,2,3,6,7,8-HxCDD	0.293**JK**		0.0714	4.34	0.77	1.000	1
1,2,3,4,7,8-HxCDD	0.544**BJK**		0.0817	4.34	1.50	1.000	1
1,2,3,7,8,9-HxCDD	0.175**BJK**		0.0763	4.34	2.02	1.007	1
1,2,3,4,6,7,8-HpCDD	5.25		0.164	4.34	1.09	1.000	1
OCDD	130		1.58	8.68	0.82	1.000	1
2,3,7,8-TCDF	ND	U	0.301	0.868			1
1,2,3,7,8-PeCDF	ND	U	0.141	4.34			1
2,3,4,7,8-PeCDF	ND	U	0.139	4.34			1
1,2,3,6,7,8-HxCDF	ND	U	0.0834	4.34			1
1,2,3,7,8,9-HxCDF	ND	U	0.115	4.34			1
1,2,3,4,7,8-HxCDF	ND	U	0.0778	4.34			1
2,3,4,6,7,8-HxCDF	ND	U	0.0744	4.34			1
1,2,3,4,6,7,8-HpCDF	0.453**BJK**		0.0440	4.34	1.96	1.000	1
1,2,3,4,7,8,9-HpCDF	0.220**BJK**		0.0523	4.34	0.64	1.000	1
OCDF	2.03**BJK**		0.0877	8.68	1.09	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-002	**Units:**	ng/Kg
Lab Code:	E2200955-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:02
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.377g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540034	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.204	0.868			1
Total Penta-Dioxins	0.378**J**		0.125	4.34	1.36		1
Total Hexa-Dioxins	4.16**J**		0.0763	4.34	1.30		1
Total Hepta-Dioxins	17.5		0.164	4.34	1.07		1
Total Tetra-Furans	ND	U	0.301	0.868			1
Total Penta-Furans	ND	U	0.140	4.34			1
Total Hexa-Furans	ND	U	0.0851	4.34			1
Total Hepta-Furans	0.873**J**		0.0478	4.34	0.92		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-002	**Units:**	Percent
Lab Code:	E2200955-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:02
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.377g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540034	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	887.587	44		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	761.074	38	**Y**	40-135	1.61	1.206
13C-1,2,3,4,7,8-HxCDD	2000	957.429	48		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1082.066	54		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	805.732	40		40-135	1.07	1.068
13C-OCDD	4000	1011.947	25	**Y**	40-135	0.92	1.140
13C-2,3,7,8-TCDF	2000	773.018	39	**Y**	40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	743.068	37	**Y**	40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	716.175	36	**Y**	40-135	1.61	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1066.742	53		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	941.378	47		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	854.737	43		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1162.419	58		40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	704.405	35	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	723.352	36	**Y**	40-135	0.42	1.081
37Cl-2,3,7,8-TCDD	800	335.214	42		40-135	NA	1.024

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-002	**Units:**	ng/Kg
Lab Code:	E2200955-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.204	0.868	1	1	
1,2,3,7,8-PeCDD	ND	0.125	4.34	1	1	
1,2,3,6,7,8-HxCDD	**0.293**	0.0714	4.34	1	0.1	0.0293
1,2,3,4,7,8-HxCDD	**0.544**	0.0817	4.34	1	0.1	0.0544
1,2,3,7,8,9-HxCDD	**0.175**	0.0763	4.34	1	0.1	0.0175
1,2,3,4,6,7,8-HpCDD	**5.25**	0.164	4.34	1	0.01	0.0525
OCDD	**130**	1.58	8.68	1	0.0003	0.0390
2,3,7,8-TCDF	ND	0.301	0.868	1	0.1	
1,2,3,7,8-PeCDF	ND	0.141	4.34	1	0.03	
2,3,4,7,8-PeCDF	ND	0.139	4.34	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.0834	4.34	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.115	4.34	1	0.1	
1,2,3,4,7,8-HxCDF	ND	0.0778	4.34	1	0.1	
2,3,4,6,7,8-HxCDF	ND	0.0744	4.34	1	0.1	
1,2,3,4,6,7,8-HpCDF	**0.453**	0.0440	4.34	1	0.01	0.00453
1,2,3,4,7,8,9-HpCDF	**0.220**	0.0523	4.34	1	0.01	0.00220
OCDF	**2.03**	0.0877	8.68	1	0.0003	0.000609
		Total TEQ				0.200

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-002	**Units:**	Percent
Lab Code:	E2200955-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	7.2452g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	55.5		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-003	**Units:**	ng/Kg
Lab Code:	E2200955-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:50
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.329g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540035	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.258	0.848			1
1,2,3,7,8-PeCDD	0.457**JK**		0.396	4.24	0.72	1.000	1
1,2,3,6,7,8-HxCDD	2.24**JK**		0.0879	4.24	1.46	1.000	1
1,2,3,4,7,8-HxCDD	0.453**BJK**		0.0962	4.24	3.13	1.000	1
1,2,3,7,8,9-HxCDD	1.86**J**		0.0919	4.24	1.43	1.007	1
1,2,3,4,6,7,8-HpCDD	59.2		1.12	4.24	1.00	1.000	1
OCDD	685		1.49	8.48	0.88	1.000	1
2,3,7,8-TCDF	1.88		0.280	0.848	0.67	1.001	1
1,2,3,7,8-PeCDF	ND	U	0.270	4.24			1
2,3,4,7,8-PeCDF	0.958**JK**		0.259	4.24	1.19	1.001	1
1,2,3,6,7,8-HxCDF	0.748**JK**		0.218	4.24	0.94	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.275	4.24			1
1,2,3,4,7,8-HxCDF	0.498**J**		0.197	4.24	1.08	1.001	1
2,3,4,6,7,8-HxCDF	0.482**J**		0.178	4.24	1.07	1.000	1
1,2,3,4,6,7,8-HpCDF	7.95**K**		0.0575	4.24	0.87	1.000	1
1,2,3,4,7,8,9-HpCDF	0.444**BJK**		0.0650	4.24	0.54	1.000	1
OCDF	20.5		0.642	8.48	0.85	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-003	**Units:**	ng/Kg
Lab Code:	E2200955-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:50
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.329g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540035	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	1.28		0.258	0.848	0.88		1
Total Penta-Dioxins	0.577**J**		0.396	4.24	1.47		1
Total Hexa-Dioxins	11.7		0.0918	4.24	1.13		1
Total Hepta-Dioxins	125		1.12	4.24	0.98		1
Total Tetra-Furans	20.2		0.280	0.848	0.68		1
Total Penta-Furans	5.57		0.107	4.24	1.48		1
Total Hexa-Furans	8.12		0.212	4.24	1.36		1
Total Hepta-Furans	ND	U	0.0611	4.24			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-003	**Units:**	Percent
Lab Code:	E2200955-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 02:50
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.329g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540035	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	708.276	35	**Y**	40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	540.333	27	**Y**	40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	503.294	25	**Y**	40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	565.108	28	**Y**	40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	462.255	23	**Y**	40-135	1.04	1.068
13C-OCDD	4000	631.189	16	**Y**	40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	655.523	33	**Y**	40-135	0.77	0.991
13C-1,2,3,7,8-PeCDF	2000	530.840	27	**Y**	40-135	1.60	1.160
13C-2,3,4,7,8-PeCDF	2000	538.242	27	**Y**	40-135	1.60	1.195
13C-1,2,3,4,7,8-HxCDF	2000	560.545	28	**Y**	40-135	0.49	0.970
13C-1,2,3,6,7,8-HxCDF	2000	478.417	24	**Y**	40-135	0.48	0.973
13C-1,2,3,7,8,9-HxCDF	2000	479.805	24	**Y**	40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	653.102	33	**Y**	40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	378.307	19	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	406.455	20	**Y**	40-135	0.42	1.081
37Cl-2,3,7,8-TCDD	800	355.909	44		40-135	NA	1.024

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-003	**Units:**	ng/Kg
Lab Code:	E2200955-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.258	0.848	1	1	
1,2,3,7,8-PeCDD	**0.457**	0.396	4.24	1	1	0.457
1,2,3,6,7,8-HxCDD	**2.24**	0.0879	4.24	1	0.1	0.224
1,2,3,4,7,8-HxCDD	**0.453**	0.0962	4.24	1	0.1	0.0453
1,2,3,7,8,9-HxCDD	**1.86**	0.0919	4.24	1	0.1	0.186
1,2,3,4,6,7,8-HpCDD	**59.2**	1.12	4.24	1	0.01	0.592
OCDD	**685**	1.49	8.48	1	0.0003	0.206
2,3,7,8-TCDF	**1.88**	0.280	0.848	1	0.1	0.188
1,2,3,7,8-PeCDF	ND	0.270	4.24	1	0.03	
2,3,4,7,8-PeCDF	**0.958**	0.259	4.24	1	0.3	0.287
1,2,3,6,7,8-HxCDF	**0.748**	0.218	4.24	1	0.1	0.0748
1,2,3,7,8,9-HxCDF	ND	0.275	4.24	1	0.1	
1,2,3,4,7,8-HxCDF	**0.498**	0.197	4.24	1	0.1	0.0498
2,3,4,6,7,8-HxCDF	**0.482**	0.178	4.24	1	0.1	0.0482
1,2,3,4,6,7,8-HpCDF	**7.95**	0.0575	4.24	1	0.01	0.0795
1,2,3,4,7,8,9-HpCDF	**0.444**	0.0650	4.24	1	0.01	0.00444
OCDF	**20.5**	0.642	8.48	1	0.0003	0.00615
		Total TEQ				2.45

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-003	**Units:**	Percent
Lab Code:	E2200955-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.6735g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.1		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-004	**Units:**	ng/Kg
Lab Code:	E2200955-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 03:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.075g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540036	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.186	0.841			1
1,2,3,7,8-PeCDD	ND	U	0.215	4.21			1
1,2,3,6,7,8-HxCDD	ND	U	0.163	4.21			1
1,2,3,4,7,8-HxCDD	0.345**BJK**		0.178	4.21	1.74	1.000	1
1,2,3,7,8,9-HxCDD	ND	U	0.170	4.21			1
1,2,3,4,6,7,8-HpCDD	4.63		0.383	4.21	0.98	1.000	1
OCDD	129		1.35	8.41	0.85	1.000	1
2,3,7,8-TCDF	ND	U	0.201	0.841			1
1,2,3,7,8-PeCDF	ND	U	0.102	4.21			1
2,3,4,7,8-PeCDF	ND	U	0.107	4.21			1
1,2,3,6,7,8-HxCDF	0.0478**BJK**		0.0172	4.21	3.33	1.000	1
1,2,3,7,8,9-HxCDF	0.167**BJK**		0.0223	4.21	1.72	1.001	1
1,2,3,4,7,8-HxCDF	0.144**BJ**		0.0157	4.21	1.22	1.000	1
2,3,4,6,7,8-HxCDF	0.0698**BJ**		0.0157	4.21	1.16	1.001	1
1,2,3,4,6,7,8-HpCDF	0.319**BJK**		0.0167	4.21	1.45	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0949**BJK**		0.0187	4.21	1.82	1.000	1
OCDF	1.16**BJ**		0.0906	8.41	0.89	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-004	**Units:**	ng/Kg
Lab Code:	E2200955-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 03:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.075g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540036	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.186	0.841			1
Total Penta-Dioxins	ND	U	0.215	4.21			1
Total Hexa-Dioxins	3.79**J**		0.170	4.21	1.22		1
Total Hepta-Dioxins	14.8		0.383	4.21	1.03		1
Total Tetra-Furans	ND	U	0.201	0.841			1
Total Penta-Furans	ND	U	0.104	4.21			1
Total Hexa-Furans	0.213**J**		0.0174	4.21	1.22		1
Total Hepta-Furans	ND	U	0.0177	4.21			1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-004	**Units:**	Percent
Lab Code:	E2200955-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 03:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.075g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540036	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1075.149	54		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	873.538	44		40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	950.171	48		40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1038.960	52		40-135	1.30	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	805.788	40		40-135	1.05	1.068
13C-OCDD	4000	1025.928	26	**Y**	40-135	0.86	1.140
13C-2,3,7,8-TCDF	2000	947.859	47		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	879.019	44		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	805.705	40		40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1040.332	52		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	939.989	47		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	916.054	46		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1107.250	55		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	680.554	34	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	749.308	37	**Y**	40-135	0.41	1.081
37Cl-2,3,7,8-TCDD	800	370.368	46		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-004	**Units:**	ng/Kg
Lab Code:	E2200955-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.186	0.841	1	1	
1,2,3,7,8-PeCDD	ND	0.215	4.21	1	1	
1,2,3,6,7,8-HxCDD	ND	0.163	4.21	1	0.1	
1,2,3,4,7,8-HxCDD	**0.345**	0.178	4.21	1	0.1	0.0345
1,2,3,7,8,9-HxCDD	ND	0.170	4.21	1	0.1	
1,2,3,4,6,7,8-HpCDD	**4.63**	0.383	4.21	1	0.01	0.0463
OCDD	**129**	1.35	8.41	1	0.0003	0.0387
2,3,7,8-TCDF	ND	0.201	0.841	1	0.1	
1,2,3,7,8-PeCDF	ND	0.102	4.21	1	0.03	
2,3,4,7,8-PeCDF	ND	0.107	4.21	1	0.3	
1,2,3,6,7,8-HxCDF	**0.0478**	0.0172	4.21	1	0.1	0.00478
1,2,3,7,8,9-HxCDF	**0.167**	0.0223	4.21	1	0.1	0.0167
1,2,3,4,7,8-HxCDF	**0.144**	0.0157	4.21	1	0.1	0.0144
2,3,4,6,7,8-HxCDF	**0.0698**	0.0157	4.21	1	0.1	0.00698
1,2,3,4,6,7,8-HpCDF	**0.319**	0.0167	4.21	1	0.01	0.00319
1,2,3,4,7,8,9-HpCDF	**0.0949**	0.0187	4.21	1	0.01	0.000949
OCDF	**1.16**	0.0906	8.41	1	0.0003	0.000348
		Total TEQ				0.167

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	09/23/22 09:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265451-004	**Units:**	Percent
Lab Code:	E2200955-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.2874g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.0		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0448	0.490			1
1,2,3,7,8-PeCDD	ND	U	0.0279	2.45			1
1,2,3,6,7,8-HxCDD	0.0188**JK**		0.0180	2.45	5.33	1.000	1
1,2,3,4,7,8-HxCDD	0.147**JK**		0.0196	2.45	1.02	1.000	1
1,2,3,7,8,9-HxCDD	0.0303**JK**		0.0188	2.45	0.58	1.007	1
1,2,3,4,6,7,8-HpCDD	0.290**J**		0.00981	2.45	1.09	1.001	1
OCDD	2.76**J**		0.119	4.90	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0580	0.490			1
1,2,3,7,8-PeCDF	ND	U	0.0354	2.45			1
2,3,4,7,8-PeCDF	ND	U	0.0358	2.45			1
1,2,3,6,7,8-HxCDF	0.0330**J**		0.0143	2.45	1.16	1.000	1
1,2,3,7,8,9-HxCDF	0.0281**JK**		0.0167	2.45	0.34	1.001	1
1,2,3,4,7,8-HxCDF	0.0436**J**		0.0128	2.45	1.20	1.000	1
2,3,4,6,7,8-HxCDF	0.0144**JK**		0.0121	2.45	0.68	1.001	1
1,2,3,4,6,7,8-HpCDF	0.123**JK**		0.00344	2.45	0.80	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0891**J**		0.00353	2.45	1.10	1.000	1
OCDF	0.336**JK**		0.0429	4.90	0.75	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0448	0.490			1
Total Penta-Dioxins	0.0675**J**		0.0279	2.45	1.35		1
Total Hexa-Dioxins	0.0545**J**		0.0188	2.45	1.41		1
Total Hepta-Dioxins	0.599**J**		0.00981	2.45	0.98		1
Total Tetra-Furans	ND	U	0.0580	0.490			1
Total Penta-Furans	ND	U	0.0356	2.45			1
Total Hexa-Furans	0.0767**J**		0.0138	2.45	1.20		1
Total Hepta-Furans	0.0891**J**		0.00353	2.45	1.10		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1338.963	67		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1180.236	59		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1011.887	51		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1148.996	57		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1095.539	55		40-135	1.06	1.068
13C-OCDD	4000	1640.166	41		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1158.315	58		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1170.581	59		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	1103.238	55		40-135	1.55	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1130.728	57		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	975.985	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1039.819	52		40-135	0.53	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1243.776	62		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	859.279	43		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1058.480	53		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	683.377	85		40-135	NA	1.024

Accuracy & Precision

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Analyzed:**	11/14/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785786

	Lab Control Sample EQ2200474-02			Duplicate Lab Control Sample EQ2200474-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	87.0	98.6	88	88.5	98.7	90	70-130	2	25
1,2,3,4,7,8-HxCDD	93.1	98.6	94	97.1	98.7	98	70-130	4	25
1,2,3,6,7,8-HxCDD	86.8	98.6	88	88.9	98.7	90	70-130	2	25
1,2,3,7,8,9-HxCDD	92.0	98.6	93	97.5	98.7	99	70-130	6	25
1,2,3,7,8-PeCDD	88.7	98.6	90	90.8	98.7	92	70-130	2	25
2,3,7,8-TCDD	15.1	19.7	76	15.3	19.7	78	70-130	2	25
OCDD	184	197	93	187	197	95	70-130	1	25
1,2,3,4,6,7,8-HpCDF	91.2	98.6	92	96.5	98.7	98	70-130	6	25
1,2,3,4,7,8,9-HpCDF	85.4	98.6	87	88.0	98.7	89	70-130	3	25
1,2,3,4,7,8-HxCDF	85.4	98.6	87	88.5	98.7	90	70-130	4	25
1,2,3,6,7,8-HxCDF	94.1	98.6	95	96.8	98.7	98	70-130	3	25
1,2,3,7,8,9-HxCDF	85.8	98.6	87	89.3	98.7	91	70-130	4	25
1,2,3,7,8-PeCDF	86.8	98.6	88	90.2	98.7	91	70-130	4	25
2,3,4,6,7,8-HxCDF	77.8	98.6	79	80.8	98.7	82	70-130	4	25
2,3,4,7,8-PeCDF	90.9	98.6	92	97.8	98.7	99	70-130	7	25
2,3,7,8-TCDF	17.4	19.7	88	18.4	19.7	93	70-130	5	25
OCDF	191	197	97	198	197	100	70-130	4	25

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.1		0.0693	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	88.7		0.0538	2.47	1.54	1.001	1
1,2,3,6,7,8-HxCDD	86.8		0.0114	2.47	1.31	1.000	1
1,2,3,4,7,8-HxCDD	93.1		0.0129	2.47	1.24	1.000	1
1,2,3,7,8,9-HxCDD	92.0		0.0121	2.47	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	87.0		0.0360	2.47	1.04	1.000	1
OCDD	184		1.08	4.93	0.85	1.000	1
2,3,7,8-TCDF	17.4		0.0539	0.493	0.73	1.001	1
1,2,3,7,8-PeCDF	86.8		0.237	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	90.9		0.249	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	94.1		0.00484	2.47	1.21	1.000	1
1,2,3,7,8,9-HxCDF	85.8		0.00622	2.47	1.17	1.000	1
1,2,3,4,7,8-HxCDF	85.4		0.00444	2.47	1.21	1.000	1
2,3,4,6,7,8-HxCDF	77.8		0.00415	2.47	1.19	1.000	1
1,2,3,4,6,7,8-HpCDF	91.2		0.166	2.47	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	85.4		0.193	2.47	1.03	1.000	1
OCDF	191		0.759	4.93	0.87	1.004	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.1		0.0693	0.493	0.73		1
Total Penta-Dioxins	88.7		0.0538	2.47	1.54		1
Total Hexa-Dioxins	272		0.0121	2.47	1.24		1
Total Hepta-Dioxins	87.0		0.0360	2.47	1.04		1
Total Tetra-Furans	17.4		0.0539	0.493	0.73		1
Total Penta-Furans	178		0.243	2.47	1.49		1
Total Hexa-Furans	343		0.00484	2.47	1.21		1
Total Hepta-Furans	177		0.179	2.47	1.01		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1393.184	70		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	1111.305	56		40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1180.259	59		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1385.600	69		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1173.807	59		40-135	1.05	1.068
13C-OCDD	4000	1675.477	42		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1177.771	59		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1121.285	56		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1032.181	52		40-135	1.59	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1310.050	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1165.428	58		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1208.008	60		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1437.627	72		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	978.253	49		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1074.929	54		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	587.310	73		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.3		0.0757	0.493	0.76	1.001	1
1,2,3,7,8-PeCDD	90.8		0.0433	2.47	1.59	1.001	1
1,2,3,6,7,8-HxCDD	88.9		0.0250	2.47	1.29	1.000	1
1,2,3,4,7,8-HxCDD	97.1		0.0279	2.47	1.25	1.000	1
1,2,3,7,8,9-HxCDD	97.5		0.0264	2.47	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	88.5		0.0127	2.47	1.06	1.000	1
OCDD	187		0.987	4.93	0.90	1.000	1
2,3,7,8-TCDF	18.4		0.0525	0.493	0.74	1.001	1
1,2,3,7,8-PeCDF	90.2		0.326	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	97.8		0.338	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	96.8		0.0146	2.47	1.23	1.000	1
1,2,3,7,8,9-HxCDF	89.3		0.0188	2.47	1.16	1.000	1
1,2,3,4,7,8-HxCDF	88.5		0.0133	2.47	1.18	1.000	1
2,3,4,6,7,8-HxCDF	80.8		0.0131	2.47	1.17	1.000	1
1,2,3,4,6,7,8-HpCDF	96.5		0.195	2.47	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	88.0		0.207	2.47	0.99	1.000	1
OCDF	198		0.104	4.93	0.92	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.0757	0.493	0.76		1
Total Penta-Dioxins	91.0		0.0433	2.47	1.59		1
Total Hexa-Dioxins	284		0.0264	2.47	1.25		1
Total Hepta-Dioxins	88.5		0.0127	2.47	1.06		1
Total Tetra-Furans	18.4		0.0525	0.493	0.74		1
Total Penta-Furans	189		0.332	2.47	1.49		1
Total Hexa-Furans	355		0.0147	2.47	1.18		1
Total Hepta-Furans	184		0.201	2.47	0.98		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200955
Project:	3265451	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1588.992	79		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1304.869	65		40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1328.136	66		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1501.285	75		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1221.116	61		40-135	1.03	1.068
13C-OCDD	4000	1592.697	40		40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	1325.123	66		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1294.477	65		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1186.517	59		40-135	1.55	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1479.181	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1310.113	66		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1303.443	65		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1570.879	79		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	984.188	49		40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1155.790	58		40-135	0.43	1.081
37Cl-2,3,7,8-TCDD	800	696.874	87		40-135	NA	1.025

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project CHPE Hudson River
Workorder 3265452
Report ID 208939 on 11/23/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 24, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3265452001	POUGH 3A	Solid	09/23/2022 12:30	09/24/2022 08:49	CBC	Collected By Client
3265452002	POUGH 3B	Solid	09/23/2022 12:45	09/24/2022 08:49	CBC	Collected By Client
3265452003	POUGH 4A	Solid	09/23/2022 13:30	09/24/2022 08:49	CBC	Collected By Client
3265452004	POUGH 4B	Solid	09/23/2022 13:45	09/24/2022 08:49	CBC	Collected By Client
3265452005	POUGH 5A	Solid	09/23/2022 10:20	09/24/2022 08:49	CBC	Collected By Client
3265452006	POUGH 5B	Solid	09/23/2022 10:35	09/24/2022 08:49	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3265452001	POUGH 3A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265452002	POUGH 3B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265452003	POUGH 4A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265452004	POUGH 4B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265452005	POUGH 5A	**S5**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265452006	POUGH 5B	**S6**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 11/23/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 56% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 43% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 62% in the bracketing CCV.
5	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 31% in the bracketing CCV.

Detected Results Summary

Client Sample ID	POUGH 3A	Collected	09/23/2022 12:30
Lab Sample ID	3265452001	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.0	mg/kg	2.8	0.95	SW846 6010D	#
Cadmium, Total	0.36J	mg/kg	0.71	0.24	SW846 6010D	#
Copper, Total	13.6	mg/kg	2.8	0.95	SW846 6010D	#
Lead, Total	15.5	mg/kg	2.8	0.95	SW846 6010D	#
Mercury, Total	0.066	mg/kg	0.063	0.020	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	47.6J	ug/kg	71.6	24.3	SW846 8270D	#
Benzo(a)pyrene	78.3	ug/kg	71.6	24.3	SW846 8270D	#
Benzo(b)fluoranthene	49.0J	ug/kg	71.6	24.3	SW846 8270D	#
Benzo(g,h,i)perylene	50.8J	ug/kg	71.6	24.3	SW846 8270D	#
Benzo(k)fluoranthene	46.7J	ug/kg	71.6	24.3	SW846 8270D	#
Chrysene	57.0J	ug/kg	71.6	24.3	SW846 8270D	#
Fluoranthene	54.4J	ug/kg	71.6	24.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	47.2J	ug/kg	71.6	24.3	SW846 8270D	#
Phenanthrene	36.0J	ug/kg	71.6	24.3	SW846 8270D	#
Pyrene	71.9	ug/kg	71.6	24.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	34.1	%	0.1	0.01	S2540G-11	#
Total Solids	65.9	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 3B	Collected	09/23/2022 12:45
Lab Sample ID	3265452002	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.8	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	10.9	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	8.8	mg/kg	3.3	1.1	SW846 6010D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.6	%	0.1	0.01	S2540G-11	#
Total Solids	59.4	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 4A	Collected	09/23/2022 13:30
Lab Sample ID	3265452003	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.7	mg/kg	3.7	1.2	SW846 6010D	#
Cadmium, Total	0.41J	mg/kg	0.93	0.31	SW846 6010D	#
Copper, Total	19.3	mg/kg	3.7	1.2	SW846 6010D	#
Lead, Total	19.8	mg/kg	3.7	1.2	SW846 6010D	#
Mercury, Total	0.13	mg/kg	0.089	0.029	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	36.4J	ug/kg	87.0	29.6	SW846 8270D	#
Benzo(a)pyrene	38.9J	ug/kg	87.0	29.6	SW846 8270D	#
Chrysene	39.9J	ug/kg	87.0	29.6	SW846 8270D	#
Fluoranthene	34.5J	ug/kg	87.0	29.6	SW846 8270D	#
Naphthalene	38.5J	ug/kg	87.0	29.6	SW846 8270D	#
Phenanthrene	30.7J	ug/kg	87.0	29.6	SW846 8270D	#
Pyrene	62.1J	ug/kg	87.0	29.6	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	46.8	%	0.1	0.01	S2540G-11	#
Total Solids	53.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 4B	Collected	09/23/2022 13:45
Lab Sample ID	3265452004	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.7	mg/kg	3.3	1.1	SW846 6010D	#
Copper, Total	14.9	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	19.0	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.043J	mg/kg	0.089	0.029	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	49.2	%	0.1	0.01	S2540G-11	#
Total Solids	50.8	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 5A	Collected	09/23/2022 10:20
Lab Sample ID	3265452005	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	5.5	mg/kg	3.2	1.1	SW846 6010D	#
Cadmium, Total	1.5	mg/kg	0.80	0.27	SW846 6010D	#
Copper, Total	21.2	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	30.9	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.11	mg/kg	0.081	0.026	SW846 7471B	#
SEMIVOLATILES						
Anthracene	32.7J	ug/kg	76.3	25.9	SW846 8270D	#
Benzo(a)anthracene	67.9J	ug/kg	76.3	25.9	SW846 8270D	#
Benzo(a)pyrene	69.7J	ug/kg	76.3	25.9	SW846 8270D	#
Benzo(b)fluoranthene	51.1J	ug/kg	76.3	25.9	SW846 8270D	#
Benzo(g,h,i)perylene	44.8J	ug/kg	76.3	25.9	SW846 8270D	#
Chrysene	75.1J	ug/kg	76.3	25.9	SW846 8270D	#
Fluoranthene	114	ug/kg	76.3	25.9	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	49.3J	ug/kg	76.3	25.9	SW846 8270D	#
Phenanthrene	113	ug/kg	76.3	25.9	SW846 8270D	#
Pyrene	149	ug/kg	76.3	25.9	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	43.5	%	0.1	0.01	S2540G-11	#
Total Solids	56.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	POUGH 5B	Collected	09/23/2022 10:35
Lab Sample ID	3265452006	Lab Receipt	09/24/2022 08:49

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.6	mg/kg	3.2	1.1	SW846 6010D	#
Copper, Total	12.3	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	12.3	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.034J	mg/kg	0.072	0.023	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.3	%	0.1	0.01	S2540G-11	#
Total Solids	59.7	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	POUGH 3A	Collected	09/23/2022 12:30
Lab Sample ID	3265452001	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.0	S1	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 16:51	A1S	E1
Cadmium, Total	0.36J	J,S1	mg/kg	0.71	0.24	SW846 6010D	1	10/18/2022 16:51	A1S	E1
Copper, Total	13.6	S1	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 16:51	A1S	E1
Lead, Total	15.5	S1	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 16:51	A1S	E1
Mercury, Total	0.066	S1	mg/kg	0.063	0.020	SW846 7471B	1	10/13/2022 15:11	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1	ug/kg	12.1	7.8	SW846 8081B	5	10/05/2022 04:55	KJH	E
4,4'-DDE	ND	ND,3,S1	ug/kg	12.1	3.9	SW846 8081B	5	10/05/2022 04:55	KJH	E
4,4'-DDT	ND	ND,4,S1	ug/kg	12.1	3.5	SW846 8081B	5	10/05/2022 04:55	KJH	E
Chlordane	ND	ND,S1	ug/kg	249	42.0	SW846 8081B	5	10/05/2022 04:55	KJH	E
Dieldrin	ND	ND,5,S1	ug/kg	12.1	4.7	SW846 8081B	5	10/05/2022 04:55	KJH	E
Mirex	ND	ND,S1	ug/kg	12.1	3.8	SW846 8081B	5	10/05/2022 04:55	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	84.4%	30 – 135	10/05/2022 04:55	
Tetrachloro-m-xylene	877-09-8	81.8%	30 – 111	10/05/2022 04:55	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Acenaphthylene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Anthracene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Benzo(a)anthracene	47.6J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Benzo(a)pyrene	78.3	S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Benzo(b)fluoranthene	49.0J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Benzo(g,h,i)perylene	50.8J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Benzo(k)fluoranthene	46.7J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Chrysene	57.0J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Fluoranthene	54.4J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Fluorene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Indeno(1,2,3-cd)pyrene	47.2J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Naphthalene	ND	ND,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Phenanthrene	36.0J	J,S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E
Pyrene	71.9	S1	ug/kg	71.6	24.3	SW846 8270D	1	09/27/2022 11:59	S7M	E

Results

Client Sample ID	POUGH 3A	Collected	09/23/2022 12:30
Lab Sample ID	3265452001	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	70.8%	19 – 132	09/27/2022 11:59	
2-Fluorobiphenyl	321-60-8	67.5%	40 – 110	09/27/2022 11:59	
2-Fluorophenol	367-12-4	62.8%	26 – 116	09/27/2022 11:59	
Nitrobenzene-d5	4165-60-0	65.6%	38 – 112	09/27/2022 11:59	
Phenol-d5	4165-62-2	65.2%	35 – 111	09/27/2022 11:59	
Terphenyl-d14	98904-43-9	77.4%	45 – 126	09/27/2022 11:59	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	11/23/2022 10:47	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	2.6	0.65	SW846 8260C	1	09/27/2022 15:35	TMP	B
Ethylbenzene	ND	ND,S1	ug/kg	2.6	0.88	SW846 8260C	1	09/27/2022 15:35	TMP	B
Toluene	ND	ND,S1	ug/kg	2.6	0.87	SW846 8260C	1	09/27/2022 15:35	TMP	B
Total Xylenes	ND	ND,S1	ug/kg	7.8	1.8	SW846 8260C	1	09/27/2022 15:35	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.2%	56 – 124	09/27/2022 15:35	
4-Bromofluorobenzene	460-00-4	90.1%	51 – 128	09/27/2022 15:35	
Dibromofluoromethane	1868-53-7	106%	62 – 123	09/27/2022 15:35	
Toluene-d8	2037-26-5	95.3%	59 – 131	09/27/2022 15:35	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	34.1	S1	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	65.9	S1	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 3B	Collected	09/23/2022 12:45
Lab Sample ID	3265452002	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.8	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:52	A1S	E1
Cadmium, Total	ND	ND,S2	mg/kg	0.83	0.28	SW846 6010D	1	10/18/2022 16:52	A1S	E1
Copper, Total	10.9	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:52	A1S	E1
Lead, Total	8.8	S2	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:52	A1S	E1

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S2	ug/kg	14.0	9.1	SW846 8081B	5	10/05/2022 05:48	KJH	E
4,4'-DDE	ND	ND,3,S2	ug/kg	14.0	4.5	SW846 8081B	5	10/05/2022 05:48	KJH	E
4,4'-DDT	ND	ND,4,S2	ug/kg	14.0	4.0	SW846 8081B	5	10/05/2022 05:48	KJH	E
Chlordane	ND	ND,S2	ug/kg	289	48.7	SW846 8081B	5	10/05/2022 05:48	KJH	E
Dieldrin	ND	ND,5,S2	ug/kg	14.0	5.4	SW846 8081B	5	10/05/2022 05:48	KJH	E
Mirex	ND	ND,S2	ug/kg	14.0	4.4	SW846 8081B	5	10/05/2022 05:48	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	56.3%	30 – 135	10/05/2022 05:48	
Tetrachloro-m-xylene	877-09-8	57.2%	30 – 111	10/05/2022 05:48	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Acenaphthylene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Anthracene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Benzo(a)anthracene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Benzo(a)pyrene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Benzo(b)fluoranthene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Benzo(g,h,i)perylene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Benzo(k)fluoranthene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Chrysene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Fluoranthene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Fluorene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Naphthalene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Phenanthrene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E
Pyrene	ND	ND,S2	ug/kg	75.1	25.5	SW846 8270D	1	09/27/2022 12:24	S7M	E

Results

Client Sample ID	POUGH 3B	Collected	09/23/2022 12:45
Lab Sample ID	3265452002	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	73%	19 – 132	09/27/2022 12:24	
2-Fluorobiphenyl	321-60-8	70.4%	40 – 110	09/27/2022 12:24	
2-Fluorophenol	367-12-4	65.8%	26 – 116	09/27/2022 12:24	
Nitrobenzene-d5	4165-60-0	68.9%	38 – 112	09/27/2022 12:24	
Phenol-d5	4165-62-2	68.7%	35 – 111	09/27/2022 12:24	
Terphenyl-d14	98904-43-9	77.5%	45 – 126	09/27/2022 12:24	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	11/23/2022 10:47	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	2.9	0.73	SW846 8260C	1	09/27/2022 16:00	TMP	B
Ethylbenzene	ND	ND,S2	ug/kg	2.9	0.99	SW846 8260C	1	09/27/2022 16:00	TMP	B
Toluene	ND	ND,S2	ug/kg	2.9	0.98	SW846 8260C	1	09/27/2022 16:00	TMP	B
Total Xylenes	ND	ND,S2	ug/kg	8.8	2.0	SW846 8260C	1	09/27/2022 16:00	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.4%	56 – 124	09/27/2022 16:00	
4-Bromofluorobenzene	460-00-4	92%	51 – 128	09/27/2022 16:00	
Dibromofluoromethane	1868-53-7	101%	62 – 123	09/27/2022 16:00	
Toluene-d8	2037-26-5	94.8%	59 – 131	09/27/2022 16:00	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.6	S2	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	59.4	S2	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 4A	Collected	09/23/2022 13:30
Lab Sample ID	3265452003	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.7	S3	mg/kg	3.7	1.2	SW846 6010D	1	10/18/2022 16:53	A1S	E1
Cadmium, Total	0.41J	J,S3	mg/kg	0.93	0.31	SW846 6010D	1	10/18/2022 16:53	A1S	E1
Copper, Total	19.3	S3	mg/kg	3.7	1.2	SW846 6010D	1	10/18/2022 16:53	A1S	E1
Lead, Total	19.8	S3	mg/kg	3.7	1.2	SW846 6010D	1	10/18/2022 16:53	A1S	E1
Mercury, Total	0.13	S3	mg/kg	0.089	0.029	SW846 7471B	1	10/13/2022 15:13	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3	ug/kg	15.7	10.1	SW846 8081B	5	10/05/2022 05:59	KJH	E
4,4'-DDE	ND	ND,3,S3	ug/kg	15.7	5.1	SW846 8081B	5	10/05/2022 05:59	KJH	E
4,4'-DDT	ND	ND,4,S3	ug/kg	15.7	4.5	SW846 8081B	5	10/05/2022 05:59	KJH	E
Chlordane	ND	ND,S3	ug/kg	322	54.3	SW846 8081B	5	10/05/2022 05:59	KJH	E
Dieldrin	ND	ND,5,S3	ug/kg	15.7	6.1	SW846 8081B	5	10/05/2022 05:59	KJH	E
Mirex	ND	ND,S3	ug/kg	15.7	4.9	SW846 8081B	5	10/05/2022 05:59	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	50.5%	30 – 135	10/05/2022 05:59	
Tetrachloro-m-xylene	877-09-8	49.2%	30 – 111	10/05/2022 05:59	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Acenaphthylene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Anthracene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Benzo(a)anthracene	36.4J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Benzo(a)pyrene	38.9J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Benzo(b)fluoranthene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Benzo(g,h,i)perylene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Benzo(k)fluoranthene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Chrysene	39.9J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Fluoranthene	34.5J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Fluorene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Naphthalene	38.5J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Phenanthrene	30.7J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E
Pyrene	62.1J	J,S3	ug/kg	87.0	29.6	SW846 8270D	1	09/27/2022 12:49	S7M	E

Results

Client Sample ID	POUGH 4A	Collected	09/23/2022 13:30
Lab Sample ID	3265452003	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	72.8%	19 – 132	09/27/2022 12:49	
2-Fluorobiphenyl	321-60-8	69.6%	40 – 110	09/27/2022 12:49	
2-Fluorophenol	367-12-4	66.8%	26 – 116	09/27/2022 12:49	
Nitrobenzene-d5	4165-60-0	71.2%	38 – 112	09/27/2022 12:49	
Phenol-d5	4165-62-2	68.4%	35 – 111	09/27/2022 12:49	
Terphenyl-d14	98904-43-9	75.5%	45 – 126	09/27/2022 12:49	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	11/23/2022 10:48	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	4.5	1.1	SW846 8260C	1	09/27/2022 16:24	TMP	B
Ethylbenzene	ND	ND,S3	ug/kg	4.5	1.5	SW846 8260C	1	09/27/2022 16:24	TMP	B
Toluene	ND	ND,S3	ug/kg	4.5	1.5	SW846 8260C	1	09/27/2022 16:24	TMP	B
Total Xylenes	ND	ND,S3	ug/kg	13.6	3.2	SW846 8260C	1	09/27/2022 16:24	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.8%	56 – 124	09/27/2022 16:24	
4-Bromofluorobenzene	460-00-4	91.6%	51 – 128	09/27/2022 16:24	
Dibromofluoromethane	1868-53-7	106%	62 – 123	09/27/2022 16:24	
Toluene-d8	2037-26-5	95.1%	59 – 131	09/27/2022 16:24	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	46.8	S3	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	53.2	S3	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 4B	Collected	09/23/2022 13:45
Lab Sample ID	3265452004	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.7	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:54	A1S	E1
Cadmium, Total	ND	ND,S4	mg/kg	0.84	0.28	SW846 6010D	1	10/18/2022 16:54	A1S	E1
Copper, Total	14.9	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:54	A1S	E1
Lead, Total	19.0	S4	mg/kg	3.3	1.1	SW846 6010D	1	10/18/2022 16:54	A1S	E1
Mercury, Total	0.043J	J,S4	mg/kg	0.089	0.029	SW846 7471B	1	10/13/2022 15:16	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S4	ug/kg	16.7	10.8	SW846 8081B	5	10/05/2022 06:09	KJH	E
4,4'-DDE	ND	ND,3,S4	ug/kg	16.7	5.4	SW846 8081B	5	10/05/2022 06:09	KJH	E
4,4'-DDT	ND	ND,4,S4	ug/kg	16.7	4.8	SW846 8081B	5	10/05/2022 06:09	KJH	E
Chlordane	ND	ND,S4	ug/kg	345	58.1	SW846 8081B	5	10/05/2022 06:09	KJH	E
Dieldrin	ND	ND,5,S4	ug/kg	16.7	6.5	SW846 8081B	5	10/05/2022 06:09	KJH	E
Mirex	ND	ND,S4	ug/kg	16.7	5.2	SW846 8081B	5	10/05/2022 06:09	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.8%	30 – 135	10/05/2022 06:09	
Tetrachloro-m-xylene	877-09-8	52.8%	30 – 111	10/05/2022 06:09	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Acenaphthylene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Anthracene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Benzo(a)anthracene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Benzo(a)pyrene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Benzo(b)fluoranthene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Benzo(g,h,i)perylene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Benzo(k)fluoranthene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Chrysene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Fluoranthene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Fluorene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Naphthalene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Phenanthrene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E
Pyrene	ND	ND,S4	ug/kg	86.4	29.4	SW846 8270D	1	09/27/2022 13:13	S7M	E

Results

Client Sample ID	POUGH 4B	Collected	09/23/2022 13:45
Lab Sample ID	3265452004	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	64.9%	19 – 132	09/27/2022 13:13	
2-Fluorobiphenyl	321-60-8	64.4%	40 – 110	09/27/2022 13:13	
2-Fluorophenol	367-12-4	62.2%	26 – 116	09/27/2022 13:13	
Nitrobenzene-d5	4165-60-0	65.1%	38 – 112	09/27/2022 13:13	
Phenol-d5	4165-62-2	63.8%	35 – 111	09/27/2022 13:13	
Terphenyl-d14	98904-43-9	69%	45 – 126	09/27/2022 13:13	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	11/23/2022 10:48	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	4.2	1.1	SW846 8260C	1	09/27/2022 16:48	TMP	B
Ethylbenzene	ND	ND,S4	ug/kg	4.2	1.4	SW846 8260C	1	09/27/2022 16:48	TMP	B
Toluene	ND	ND,S4	ug/kg	4.2	1.4	SW846 8260C	1	09/27/2022 16:48	TMP	B
Total Xylenes	ND	ND,S4	ug/kg	12.7	3.0	SW846 8260C	1	09/27/2022 16:48	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.8%	56 – 124	09/27/2022 16:48	
4-Bromofluorobenzene	460-00-4	91.5%	51 – 128	09/27/2022 16:48	
Dibromofluoromethane	1868-53-7	104%	62 – 123	09/27/2022 16:48	
Toluene-d8	2037-26-5	94.7%	59 – 131	09/27/2022 16:48	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	49.2	S4	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	50.8	S4	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 5A	Collected	09/23/2022 10:20
Lab Sample ID	3265452005	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	5.5	S5	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:55	A1S	E1
Cadmium, Total	1.5	S5	mg/kg	0.80	0.27	SW846 6010D	1	10/18/2022 16:55	A1S	E1
Copper, Total	21.2	S5	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:55	A1S	E1
Lead, Total	30.9	S5	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:55	A1S	E1
Mercury, Total	0.11	S5	mg/kg	0.081	0.026	SW846 7471B	1	10/13/2022 15:18	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S5	ug/kg	14.4	9.3	SW846 8081B	5	10/05/2022 06:20	KJH	E
4,4'-DDE	ND	ND,3,S5	ug/kg	14.4	4.7	SW846 8081B	5	10/05/2022 06:20	KJH	E
4,4'-DDT	ND	ND,4,S5	ug/kg	14.4	4.1	SW846 8081B	5	10/05/2022 06:20	KJH	E
Chlordane	ND	ND,S5	ug/kg	296	49.9	SW846 8081B	5	10/05/2022 06:20	KJH	E
Dieldrin	ND	ND,5,S5	ug/kg	14.4	5.6	SW846 8081B	5	10/05/2022 06:20	KJH	E
Mirex	ND	ND,S5	ug/kg	14.4	4.5	SW846 8081B	5	10/05/2022 06:20	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	57.2%	30 – 135	10/05/2022 06:20	
Tetrachloro-m-xylene	877-09-8	62%	30 – 111	10/05/2022 06:20	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Acenaphthylene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Anthracene	32.7J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Benzo(a)anthracene	67.9J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Benzo(a)pyrene	69.7J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Benzo(b)fluoranthene	51.1J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Benzo(g,h,i)perylene	44.8J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Benzo(k)fluoranthene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Chrysene	75.1J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Fluoranthene	114	S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Fluorene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Indeno(1,2,3-cd)pyrene	49.3J	J,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Naphthalene	ND	ND,S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Phenanthrene	113	S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E
Pyrene	149	S5	ug/kg	76.3	25.9	SW846 8270D	1	09/27/2022 13:38	S7M	E

Results

Client Sample ID	POUGH 5A	Collected	09/23/2022 10:20
Lab Sample ID	3265452005	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	63.7%	19 – 132	09/27/2022 13:38	
2-Fluorobiphenyl	321-60-8	53.7%	40 – 110	09/27/2022 13:38	
2-Fluorophenol	367-12-4	44.4%	26 – 116	09/27/2022 13:38	
Nitrobenzene-d5	4165-60-0	48.2%	38 – 112	09/27/2022 13:38	
Phenol-d5	4165-62-2	47.9%	35 – 111	09/27/2022 13:38	
Terphenyl-d14	98904-43-9	70.2%	45 – 126	09/27/2022 13:38	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S5	ug/L			EPA 1613B	1	11/23/2022 10:48	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S5	ug/kg	3.6	0.89	SW846 8260C	1	09/27/2022 17:13	TMP	B
Ethylbenzene	ND	ND,S5	ug/kg	3.6	1.2	SW846 8260C	1	09/27/2022 17:13	TMP	B
Toluene	ND	ND,S5	ug/kg	3.6	1.2	SW846 8260C	1	09/27/2022 17:13	TMP	B
Total Xylenes	ND	ND,S5	ug/kg	10.7	2.5	SW846 8260C	1	09/27/2022 17:13	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.5%	56 – 124	09/27/2022 17:13	
4-Bromofluorobenzene	460-00-4	94.5%	51 – 128	09/27/2022 17:13	
Dibromofluoromethane	1868-53-7	107%	62 – 123	09/27/2022 17:13	
Toluene-d8	2037-26-5	96.5%	59 – 131	09/27/2022 17:13	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	43.5	S5	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	56.5	S5	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Results

Client Sample ID	POUGH 5B	Collected	09/23/2022 10:35
Lab Sample ID	3265452006	Lab Receipt	09/24/2022 08:49

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.6	S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:56	A1S	E1
Cadmium, Total	ND	ND,S6	mg/kg	0.81	0.27	SW846 6010D	1	10/18/2022 16:56	A1S	E1
Copper, Total	12.3	S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:56	A1S	E1
Lead, Total	12.3	S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:56	A1S	E1
Mercury, Total	0.034J	J,S6	mg/kg	0.072	0.023	SW846 7471B	1	10/13/2022 15:19	A1S	E

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S6	ug/kg	13.5	8.7	SW846 8081B	5	10/05/2022 06:30	KJH	E
4,4'-DDE	ND	ND,3,S6	ug/kg	13.5	4.4	SW846 8081B	5	10/05/2022 06:30	KJH	E
4,4'-DDT	ND	ND,4,S6	ug/kg	13.5	3.9	SW846 8081B	5	10/05/2022 06:30	KJH	E
Chlordane	ND	ND,S6	ug/kg	278	46.9	SW846 8081B	5	10/05/2022 06:30	KJH	E
Dieldrin	ND	ND,5,S6	ug/kg	13.5	5.2	SW846 8081B	5	10/05/2022 06:30	KJH	E
Mirex	ND	ND,S6	ug/kg	13.5	4.2	SW846 8081B	5	10/05/2022 06:30	KJH	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	71.2%	30 – 135	10/05/2022 06:30	
Tetrachloro-m-xylene	877-09-8	65.4%	30 – 111	10/05/2022 06:30	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Acenaphthylene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Anthracene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Benzo(a)anthracene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Benzo(a)pyrene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Benzo(b)fluoranthene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Benzo(g,h,i)perylene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Benzo(k)fluoranthene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Chrysene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Dibenzo(a,h)anthracene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Fluoranthene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Fluorene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Indeno(1,2,3-cd)pyrene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Naphthalene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Phenanthrene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E
Pyrene	ND	ND,S6	ug/kg	69.8	23.7	SW846 8270D	1	09/27/2022 14:03	S7M	E

Results

Client Sample ID	POUGH 5B	Collected	09/23/2022 10:35
Lab Sample ID	3265452006	Lab Receipt	09/24/2022 08:49

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	69.9%	19 – 132	09/27/2022 14:03	
2-Fluorobiphenyl	321-60-8	62.4%	40 – 110	09/27/2022 14:03	
2-Fluorophenol	367-12-4	52.7%	26 – 116	09/27/2022 14:03	
Nitrobenzene-d5	4165-60-0	58.5%	38 – 112	09/27/2022 14:03	
Phenol-d5	4165-62-2	57.1%	35 – 111	09/27/2022 14:03	
Terphenyl-d14	98904-43-9	72.9%	45 – 126	09/27/2022 14:03	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S6	ug/L			EPA 1613B	1	11/23/2022 10:49	SUB	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S6	ug/kg	3.5	0.88	SW846 8260C	1	09/27/2022 17:37	TMP	B
Ethylbenzene	ND	ND,S6	ug/kg	3.5	1.2	SW846 8260C	1	09/27/2022 17:37	TMP	B
Toluene	ND	ND,S6	ug/kg	3.5	1.2	SW846 8260C	1	09/27/2022 17:37	TMP	B
Total Xylenes	ND	ND,S6	ug/kg	10.6	2.5	SW846 8260C	1	09/27/2022 17:37	TMP	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.9%	56 – 124	09/27/2022 17:37	
4-Bromofluorobenzene	460-00-4	92.9%	51 – 128	09/27/2022 17:37	
Dibromofluoromethane	1868-53-7	105%	62 – 123	09/27/2022 17:37	
Toluene-d8	2037-26-5	96.3%	59 – 131	09/27/2022 17:37	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.3	S6	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E
Total Solids	59.7	S6	%	0.1	0.01	S2540G-11	1	09/27/2022 08:40	NXL	E

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265452001	POUGH 3A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265452002	POUGH 3B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265452003	POUGH 4A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265452004	POUGH 4B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265452005	POUGH 5A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265452006	POUGH 5B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3265452001	POUGH 3A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 12:30	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265452002	POUGH 3B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 12:45	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265452003	POUGH 4A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 13:30	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265452004	POUGH 4B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 13:45	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265452005	POUGH 5A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 10:20	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106
3265452006	POUGH 5B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	890176	10/13/2022 13:05	WDA	SW846 7471B	890226
		SW846 3546	884089	09/26/2022 14:45	RXS	SW846 8081B	884332
		SW846 3546	884091	09/26/2022 14:40	SRL	SW846 8270D	884321
		SW846 5035A	884276	09/23/2022 10:35	TMP	SW846 8260C	884278
		N/A	N/A	N/A		S2540G-11	884106

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3265452
Logged By: AXF
PM: SSL
ALS Quote #:
1 of 1

Client Name: Normandeau Assoc.
Address: 400 Old Reading Pike Bldg. A; Ste 101 Stowe PA 19464
Contact: Don Nazario
Phone#: 717-617-7076
Project Name/#: CHPE Hudson River
Bill To: Don Nazario
Purchase Order #: 24711.001
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X] Y DNAZARIO@Normandeau.com

	Container Type	VOA	Glass	Glass							
	Container Size	40ml	8oz	8oz							
	Preservative	MeOH	—	—							

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOC, % moist	PAHs, Pest, Metals	Dioxins							
							Enter Number of Containers Per Sample or Field Results Below.									
1	POUGH 3A	9/23/22	1230		G	S	4	1	1							
2	3B		1245		G	S	4	1	1							
3	4A		1330		G	S	4	1	1							
4	4B		1345		G	S	4	1	1							
5	5A		1020		G	S	4	1	1							
6	5B		1035		G	S	4	1	1							
7																
8																
9																
10																

Receipt Information (completed by Receiving Lab)
Temp Taken By: AMRF Therm ID: 570 WO Temp (°C) 2°
Receipt Info completed by: AMRF WV Containers 0-6°C Y N (NA)

Cooler Custody Seals Intact	Y	N	(NA)
Sample Custody Seal Intact	Y	N	(NA)
Received on Ice	(Y)	N	NA
Coolers & Samples Intact	(Y)	N*	
Correct Containers Provided	(Y)	N	
Sample Label/COC Agree	(Y)	N	
Adequate Sample Volumes	(Y)	N	
VOA only: Headspace Present	Y	(N)	NA
VOA only: Trip Blank	Y	(N)	NA

Deviations? NO YES
If YES, llist below:
*Sample 4A 1/2 soil Jars has a broken lid same with samples 3B, 4B

NJ ≤ 4 days?
Courier/Tracking #: 7700 1325 1870
Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
Rad Screen (uCi)
New Source? Y N
SDWA State of Origin?
New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

SAMPLED BY (Please Print, if MD include Sampler #): DON NAZARIO

Comments: Please do not analyze for PCBs

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/23/22	1530	1	JNazario/Normandeau	2	FedEx
		3	FedEx	4	AMRF/ALS 9/24/22 8:49
		5		6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 05/22

November 22, 2022 Service Request No:E2200954

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3265452

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 01, 2022
For your reference, these analyses have been assigned our service request number **E2200954.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental – Middletown	**Service Request No.:**	E2200954
Project:	3265452	**Date Received:**	10/01/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 10/01/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200474: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS/DLCS recoveries passed.

B flags – Method Blanks

The Method Blank EQ2200474-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - Middletown **Service Request:**E2200954
Project: 3265452

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200954-001	3265452-001 (Pough 3A)	9/23/2022	1230
E2200954-002	3265452-002 (Pough 3B)	9/23/2022	1245
E2200954-003	3265452-003 (Pough 4A)	9/23/2022	1330
E2200954-004	3265452-004 (Pough 4B)	9/23/2022	1345
E2200954-005	3265452-005 (Pough 5A)	9/23/2022	1020
E2200954-006	3265452-006 (Pough 5B)	9/23/2022	1035

Service Request Summary

Folder #: **E2200954**
Client Name: ALS Environmental - Middletown
Project Name: 3265452
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/01/22
Internal Due Date: 11/7/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3265452
EDD: BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2C
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200954-001	3265452-001 (Pough 3A)	Soil	09/23/22 1230	II	II
E2200954-002	3265452-002 (Pough 3B)	Soil	09/23/22 1245	II	II
E2200954-003	3265452-003 (Pough 4A)	Soil	09/23/22 1330	II	II
E2200954-004	3265452-004 (Pough 4B)	Soil	09/23/22 1345	II	II
E2200954-005	3265452-005 (Pough 5A)	Soil	09/23/22 1020	II	II
E2200954-006	3265452-006 (Pough 5B)	Soil	09/23/22 1035	II	II

Printed 11/22/2022 2:55:42 PM

Service Request Summary

Folder #:	**E2200954**
Client Name:	ALS Environmental - Middletown
Project Name:	3265452
Project Number:	
Report To:	Sarah Leung ALS Environmental - Middletown 301 Fulling Mill Road Middletown, PA 17057 USA
Phone Number:	717-944-5541
Cell Number:	
Fax Number:	
E-mail:	sarah.leung@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	10/01/22
Internal Due Date:	11/7/2022
QAP:	LAB QAP
Qualifier Set:	HRMS Qualifier Set
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	3265452
EDD:	BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Location: EHRMS-WIC 2C

Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E2200954 | (DB-5MSUI) | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/18/22	LKL	001–005

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/18/22	SL	001–005

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22O0954 (DB-5MSUI) SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/22/22	YC	006

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/22/22	SL	006

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3265452

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Receipt Information (completed by Receiving Lab)

W.O. Temp: 3.6 Therm ID: 103

Courier/Tracking #:

Purchase Order #: 3265452

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	DIOXIN METHOD 8290	Sample/COC Comments
	Container Type					G	
	Container Size					8oz	
	Perservative					None	
	ANALYSES/METHOD REQUESTED						
	Enter Number of Containers Per Sample or Field Results Below.						
1	3265452001 (Pough 3A)	9/23/22	1230	G	S	1	
2	3265452002 (Pough 3B)	9/23/22	1245	G	S	1	
3	3265452003 (Pough 4A)	9/23/22	1330	G	S	1	
4	3265452004 (Pough 4B)	9/23/22	1345	G	S	1	
5	3265452005 (Pough 5A)	9/23/22	1020	G	S	1	
6	3265452006 (Pough 5B)	9/23/22	1035	G	S	1	
7							
8							
9							
10							

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9/23/22	1640	2	9/23/22	0940
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD [ ] other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist JK

Client/Project ALS-MI Thermometer ID IR1

Date/Time Received: 10/11/22 Initials: CA Date/Time Logged in: 10/11/22 Initials CA

1. Method of delivery: ◯ US Mail ☒ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client

2. Samples received in: ☒ Cooler ◯ Box ◯ Envelope ◯ Other

3. Were custody seals on coolers? ◯ Yes ☒ No
   Were they intact? ◯ Yes ◯ No ☒ N/A
   Were they signed and dated? ◯ Yes ◯ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ◯ Inserts ☒ Baggies ☒ Bubble Wrap ◯ Gel Packs ☒ Wet Ice ◯ Sleeves ◯ Other

5. Foreign or Regulated Soil? ◯ Yes ◯ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 6072		10/11/22	0940	CA	3.0	☒
5857 1123 6083		10/11/22	0940	CA	3.4	☒
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ◯ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ◯ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ◯ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ◯ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ◯ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200953-001	3265886-001 (Port Ewen 2A)	.01	8290A/PCDD PCDF			Soil	10.344g	brown mud
2	E2200953-002	3265886-002 (Port Ewen 2B)	.01	8290A/PCDD PCDF			Soil	10.057g	brown mud
3	E2200953-003	3265886-003 (Port Ewen 3A)	.01	8290A/PCDD PCDF			Soil	10.067g	brown mud
4	E2200953-004	3265886-004 (Port Ewen 3B)	.01	8290A/PCDD PCDF			Soil	10.280g	brown mud
5	E2200953-005	3265886-005 (Port Ewen 4A)	.01	8290A/PCDD PCDF			Soil	10.331g	brown mud
6	E2200953-006	3265886-006 (Port Ewen 4B)	.01	8290A/PCDD PCDF			Soil	10.187g	brown mud
7	E2200953-007	3265886-007 (Port Ewen 5A)	.01	8290A/PCDD PCDF			Soil	10.242g	brown mud
8	E2200953-008	3265886-008 (Port Ewen 5B)	.01	8290A/PCDD PCDF			Soil	10.315g	brown mud
9	E2200954-001	3265452-001 (Pough 3A)	.01	8290A/PCDD PCDF			Soil	10.046g	brown mud
10	E2200954-002	3265452-002 (Pough 3B)	.01	8290A/PCDD PCDF			Soil	10.308g	brown mud
11	E2200954-003	3265452-003 (Pough 4A)	.01	8290A/PCDD PCDF			Soil	10.137g	brown mud
12	E2200954-004	3265452-004 (Pough 4B)	.01	8290A/PCDD PCDF			Soil	10.193g	brown mud
13	E2200954-005	3265452-005 (Pough 5A)	.01	8290A/PCDD PCDF			Soil	10.318g	brown mud
14	E2200954-006	3265452-006 (Pough 5B)	.01	8290A/PCDD PCDF			Soil	10.256g	brown mud
15	E2200955-001	3265451-001	.01	8290A/PCDD PCDF			Soil	10.003g	brown mud
16	E2200955-002	3265451-002	.01	8290A/PCDD PCDF			Soil	10.377g	brown mud
17	E2200955-003	3265451-003	.01	8290A/PCDD PCDF			Soil	10.329g	brown mud
18	E2200955-004	3265451-004	.01	8290A/PCDD PCDF			Soil	10.075g	brown mud
19	EQ2200474-01	MB		8290A/PCDD PCDF			Solid	10.199g	
20	EQ2200474-02	LCS		8290A/PCDD PCDF			Solid	10.137g	
21	EQ2200474-03	DLCS		8290A/PCDD PCDF			Solid	10.135g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200474-02	100.00µL	EQ2200474-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200953-001	100.00µL	E2200953-002	100.00µL	E2200953-003	100.00µL	E2200953-004	100.00µL	E2200953-005	100.00µL	E2200953-006	100.00µL
E2200953-007	100.00µL	E2200953-008	100.00µL	E2200954-001	100.00µL	E2200954-002	100.00µL	E2200954-003	100.00µL	E2200954-004	100.00µL
E2200954-005	100.00µL	E2200954-006	100.00µL	E2200955-001	100.00µL	E2200955-002	100.00µL	E2200955-003	100.00µL	E2200955-004	100.00µL
EQ2200474-01	100.00µL	EQ2200474-02	100.00µL	EQ2200474-03	100.00µL						

Name: 1613B Labeled Working Standard Inventory ID 225489 Logbook Ref: NB 10/14/2022 225489 ng/mL Expires On: 04/10/2023

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped

Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

E2200953-001	1,000.00µL	E2200953-002	1,000.00µL	E2200953-003	1,000.00µL	E2200953-004	1,000.00µL	E2200953-005	1,000.00µL	E2200953-006	1,000.00µL
E2200953-007	1,000.00µL	E2200953-008	1,000.00µL	E2200954-001	1,000.00µL	E2200954-002	1,000.00µL	E2200954-003	1,000.00µL	E2200954-004	1,000.00µL
E2200954-005	1,000.00µL	E2200954-006	1,000.00µL	E2200955-001	1,000.00µL	E2200955-002	1,000.00µL	E2200955-003	1,000.00µL	E2200955-004	1,000.00µL
EQ2200474-01	1,000.00µL	EQ2200474-02	1,000.00µL	EQ2200474-03	1,000.00µL						

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:44	Started:	10/20/22 12:00	Started:	10/20/22 13:00	Started:	10/21/22 13:00
Finished:	10/19/22 09:00	Finished:	10/20/22 13:00	Finished:	10/20/22 16:00	Finished:	10/21/22 16:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: TW Date: 10/18/22

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-001 (Pough 3A)	**Units:**	ng/Kg
Lab Code:	E2200954-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 14:29
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.046g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540020	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.543	0.828			1
1,2,3,7,8-PeCDD	ND	U	0.262	4.14			1
1,2,3,6,7,8-HxCDD	0.916**J**		0.179	4.14	1.31	1.000	1
1,2,3,4,7,8-HxCDD	0.606**JK**		0.193	4.14	1.52	1.000	1
1,2,3,7,8,9-HxCDD	0.384**JK**		0.186	4.14	0.59	1.007	1
1,2,3,4,6,7,8-HpCDD	15.7**K**		0.619	4.14	1.21	1.000	1
OCDD	209		4.20	8.28	0.95	1.000	1
2,3,7,8-TCDF	ND	U	0.383	0.828			1
1,2,3,7,8-PeCDF	ND	U	0.304	4.14			1
2,3,4,7,8-PeCDF	ND	U	0.278	4.14			1
1,2,3,6,7,8-HxCDF	0.396**JK**		0.161	4.14	1.44	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.219	4.14			1
1,2,3,4,7,8-HxCDF	ND	U	0.149	4.14			1
2,3,4,6,7,8-HxCDF	ND	U	0.125	4.14			1
1,2,3,4,6,7,8-HpCDF	2.92**J**		0.272	4.14	1.10	1.000	1
1,2,3,4,7,8,9-HpCDF	0.655**JK**		0.324	4.14	0.66	1.000	1
OCDF	8.31		0.722	8.28	0.81	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-001 (Pough 3A)	**Units:**	ng/Kg
Lab Code:	E2200954-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 14:29
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.046g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540020	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.543	0.828			1
Total Penta-Dioxins	ND	U	0.262	4.14			1
Total Hexa-Dioxins	7.76		0.185	4.14	1.26		1
Total Hepta-Dioxins	22.6		0.619	4.14	0.89		1
Total Tetra-Furans	1.22		0.383	0.828	0.88		1
Total Penta-Furans	ND	U	0.291	4.14			1
Total Hexa-Furans	1.03**J**		0.157	4.14	1.20		1
Total Hepta-Furans	2.92**J**		0.297	4.14	1.10		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-001 (Pough 3A)	**Units:**	Percent
Lab Code:	E2200954-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 14:29
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.046g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540020	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	652.241	33	**Y**	40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	464.942	23	**Y**	40-135	1.62	1.206
13C-1,2,3,4,7,8-HxCDD	2000	421.463	21	**Y**	40-135	1.35	0.991
13C-1,2,3,6,7,8-HxCDD	2000	483.478	24	**Y**	40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	298.471	15	**Y**	40-135	1.14	1.068
13C-OCDD	4000	348.224	9	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	619.866	31	**Y**	40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	462.628	23	**Y**	40-135	1.56	1.160
13C-2,3,4,7,8-PeCDF	2000	483.535	24	**Y**	40-135	1.60	1.196
13C-1,2,3,4,7,8-HxCDF	2000	438.302	22	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	400.887	20	**Y**	40-135	0.48	0.973
13C-1,2,3,7,8,9-HxCDF	2000	366.162	18	**Y**	40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	555.935	28	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	239.638	12	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	261.510	13	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	451.569	56		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-001 (Pough 3A)	**Units:**	ng/Kg
Lab Code:	E2200954-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.543	0.828	1	1	
1,2,3,7,8-PeCDD	ND	0.262	4.14	1	1	
1,2,3,6,7,8-HxCDD	**0.916**	0.179	4.14	1	0.1	0.0916
1,2,3,4,7,8-HxCDD	**0.606**	0.193	4.14	1	0.1	0.0606
1,2,3,7,8,9-HxCDD	**0.384**	0.186	4.14	1	0.1	0.0384
1,2,3,4,6,7,8-HpCDD	**15.7**	0.619	4.14	1	0.01	0.157
OCDD	**209**	4.20	8.28	1	0.0003	0.0627
2,3,7,8-TCDF	ND	0.383	0.828	1	0.1	
1,2,3,7,8-PeCDF	ND	0.304	4.14	1	0.03	
2,3,4,7,8-PeCDF	ND	0.278	4.14	1	0.3	
1,2,3,6,7,8-HxCDF	**0.396**	0.161	4.14	1	0.1	0.0396
1,2,3,7,8,9-HxCDF	ND	0.219	4.14	1	0.1	
1,2,3,4,7,8-HxCDF	ND	0.149	4.14	1	0.1	
2,3,4,6,7,8-HxCDF	ND	0.125	4.14	1	0.1	
1,2,3,4,6,7,8-HpCDF	**2.92**	0.272	4.14	1	0.01	0.0292
1,2,3,4,7,8,9-HpCDF	**0.655**	0.324	4.14	1	0.01	0.00655
OCDF	**8.31**	0.722	8.28	1	0.0003	0.00249
		Total TEQ				0.488

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-001 (Pough 3A)	**Units:**	Percent
Lab Code:	E2200954-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	8.7505g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	60.1		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-002 (Pough 3B)	**Units:**	ng/Kg
Lab Code:	E2200954-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 15:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.308g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540021	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.301	0.825			1
1,2,3,7,8-PeCDD	0.217**J**		0.164	4.12	1.50	1.001	1
1,2,3,6,7,8-HxCDD	0.229**JK**		0.172	4.12	0.71	1.000	1
1,2,3,4,7,8-HxCDD	0.405**J**		0.192	4.12	1.14	1.000	1
1,2,3,7,8,9-HxCDD	0.315**JK**		0.181	4.12	1.65	1.007	1
1,2,3,4,6,7,8-HpCDD	7.93		0.211	4.12	1.04	1.000	1
OCDD	154		0.857	8.25	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.256	0.825			1
1,2,3,7,8-PeCDF	ND	U	0.242	4.12			1
2,3,4,7,8-PeCDF	ND	U	0.238	4.12			1
1,2,3,6,7,8-HxCDF	0.226**J**		0.0512	4.12	1.17	1.000	1
1,2,3,7,8,9-HxCDF	0.209**JK**		0.0674	4.12	1.93	1.001	1
1,2,3,4,7,8-HxCDF	0.193**JK**		0.0472	4.12	1.66	1.001	1
2,3,4,6,7,8-HxCDF	0.230**J**		0.0429	4.12	1.12	1.000	1
1,2,3,4,6,7,8-HpCDF	2.29**JK**		0.126	4.12	0.86	1.000	1
1,2,3,4,7,8,9-HpCDF	0.309**JK**		0.146	4.12	1.60	1.000	1
OCDF	57.5		0.457	8.25	0.90	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-002 (Pough 3B)	**Units:**	ng/Kg
Lab Code:	E2200954-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 15:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.308g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540021	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.301	0.825			1
Total Penta-Dioxins	0.484**J**		0.164	4.12	1.33		1
Total Hexa-Dioxins	4.12**J**		0.181	4.12	1.23		1
Total Hepta-Dioxins	20.1		0.211	4.12	0.98		1
Total Tetra-Furans	ND	U	0.256	0.825			1
Total Penta-Furans	ND	U	0.240	4.12			1
Total Hexa-Furans	2.10**J**		0.0510	4.12	1.21		1
Total Hepta-Furans	8.72		0.135	4.12	1.06		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-002 (Pough 3B)	**Units:**	Percent
Lab Code:	E2200954-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 15:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.308g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540021	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	955.659	48		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	865.649	43		40-135	1.62	1.206
13C-1,2,3,4,7,8-HxCDD	2000	978.919	49		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1148.314	57		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	936.821	47		40-135	1.05	1.068
13C-OCDD	4000	1252.458	31	**Y**	40-135	0.92	1.139
13C-2,3,7,8-TCDF	2000	815.402	41		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	822.953	41		40-135	1.60	1.160
13C-2,3,4,7,8-PeCDF	2000	805.957	40		40-135	1.60	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1052.856	53		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	949.867	47		40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	938.879	47		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1198.855	60		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	768.994	38	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	877.485	44		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	357.329	45		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-002 (Pough 3B)	**Units:**	ng/Kg
Lab Code:	E2200954-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.301	0.825	1	1	
1,2,3,7,8-PeCDD	**0.217**	0.164	4.12	1	1	0.217
1,2,3,6,7,8-HxCDD	**0.229**	0.172	4.12	1	0.1	0.0229
1,2,3,4,7,8-HxCDD	**0.405**	0.192	4.12	1	0.1	0.0405
1,2,3,7,8,9-HxCDD	**0.315**	0.181	4.12	1	0.1	0.0315
1,2,3,4,6,7,8-HpCDD	**7.93**	0.211	4.12	1	0.01	0.0793
OCDD	**154**	0.857	8.25	1	0.0003	0.0462
2,3,7,8-TCDF	ND	0.256	0.825	1	0.1	
1,2,3,7,8-PeCDF	ND	0.242	4.12	1	0.03	
2,3,4,7,8-PeCDF	ND	0.238	4.12	1	0.3	
1,2,3,6,7,8-HxCDF	**0.226**	0.0512	4.12	1	0.1	0.0226
1,2,3,7,8,9-HxCDF	**0.209**	0.0674	4.12	1	0.1	0.0209
1,2,3,4,7,8-HxCDF	**0.193**	0.0472	4.12	1	0.1	0.0193
2,3,4,6,7,8-HxCDF	**0.230**	0.0429	4.12	1	0.1	0.0230
1,2,3,4,6,7,8-HpCDF	**2.29**	0.126	4.12	1	0.01	0.0229
1,2,3,4,7,8,9-HpCDF	**0.309**	0.146	4.12	1	0.01	0.00309
OCDF	**57.5**	0.457	8.25	1	0.0003	0.0173
		Total TEQ				0.566

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 12:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-002 (Pough 3B)	**Units:**	Percent
Lab Code:	E2200954-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.272g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	58.8		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-003 (Pough 4A)	**Units:**	ng/Kg
Lab Code:	E2200954-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540022	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.198	0.890			1
1,2,3,7,8-PeCDD	0.180**J**		0.139	4.45	1.66	1.001	1
1,2,3,6,7,8-HxCDD	0.963**J**		0.117	4.45	1.23	1.000	1
1,2,3,4,7,8-HxCDD	0.612**JK**		0.126	4.45	1.72	1.000	1
1,2,3,7,8,9-HxCDD	0.491**J**		0.121	4.45	1.41	1.007	1
1,2,3,4,6,7,8-HpCDD	20.9		0.226	4.45	1.09	1.000	1
OCDD	283		1.73	8.90	0.90	1.000	1
2,3,7,8-TCDF	0.829**J**		0.213	0.890	0.72	0.999	1
1,2,3,7,8-PeCDF	ND	U	0.194	4.45			1
2,3,4,7,8-PeCDF	0.440**JK**		0.200	4.45	0.85	1.001	1
1,2,3,6,7,8-HxCDF	0.399**J**		0.0700	4.45	1.20	1.000	1
1,2,3,7,8,9-HxCDF	0.189**JK**		0.0893	4.45	0.99	1.000	1
1,2,3,4,7,8-HxCDF	0.505**J**		0.0643	4.45	1.12	1.000	1
2,3,4,6,7,8-HxCDF	0.268**JK**		0.0620	4.45	0.83	1.000	1
1,2,3,4,6,7,8-HpCDF	7.57		0.0821	4.45	0.96	1.000	1
1,2,3,4,7,8,9-HpCDF	0.220**JK**		0.0960	4.45	0.71	1.000	1
OCDF	9.72		0.652	8.90	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-003 (Pough 4A)	**Units:**	ng/Kg
Lab Code:	E2200954-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540022	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.345**J**		0.198	0.890	0.70		1
Total Penta-Dioxins	1.03**J**		0.139	4.45	1.73		1
Total Hexa-Dioxins	11.7		0.121	4.45	1.26		1
Total Hepta-Dioxins	50.8		0.226	4.45	1.01		1
Total Tetra-Furans	8.35		0.213	0.890	0.88		1
Total Penta-Furans	ND	U	0.197	4.45			1
Total Hexa-Furans	4.60		0.0702	4.45	1.21		1
Total Hepta-Furans	7.57		0.0887	4.45	0.96		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-003 (Pough 4A)	**Units:**	Percent
Lab Code:	E2200954-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540022	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1381.144	69		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1050.753	53		40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1113.101	56		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1229.816	61		40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	992.001	50		40-135	1.07	1.068
13C-OCDD	4000	1380.340	35	**Y**	40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	1217.907	61		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1080.149	54		40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	991.837	50		40-135	1.56	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1201.509	60		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1116.145	56		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1101.772	55		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1342.087	67		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	854.345	43		40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	909.129	45		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	525.597	66		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-003 (Pough 4A)	**Units:**	ng/Kg
Lab Code:	E2200954-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.198	0.890	1	1	
1,2,3,7,8-PeCDD	**0.180**	0.139	4.45	1	1	0.180
1,2,3,6,7,8-HxCDD	**0.963**	0.117	4.45	1	0.1	0.0963
1,2,3,4,7,8-HxCDD	**0.612**	0.126	4.45	1	0.1	0.0612
1,2,3,7,8,9-HxCDD	**0.491**	0.121	4.45	1	0.1	0.0491
1,2,3,4,6,7,8-HpCDD	**20.9**	0.226	4.45	1	0.01	0.209
OCDD	**283**	1.73	8.90	1	0.0003	0.0849
2,3,7,8-TCDF	**0.829**	0.213	0.890	1	0.1	0.0829
1,2,3,7,8-PeCDF	ND	0.194	4.45	1	0.03	
2,3,4,7,8-PeCDF	**0.440**	0.200	4.45	1	0.3	0.132
1,2,3,6,7,8-HxCDF	**0.399**	0.0700	4.45	1	0.1	0.0399
1,2,3,7,8,9-HxCDF	**0.189**	0.0893	4.45	1	0.1	0.0189
1,2,3,4,7,8-HxCDF	**0.505**	0.0643	4.45	1	0.1	0.0505
2,3,4,6,7,8-HxCDF	**0.268**	0.0620	4.45	1	0.1	0.0268
1,2,3,4,6,7,8-HpCDF	**7.57**	0.0821	4.45	1	0.01	0.0757
1,2,3,4,7,8,9-HpCDF	**0.220**	0.0960	4.45	1	0.01	0.00220
OCDF	**9.72**	0.652	8.90	1	0.0003	0.00292
		Total TEQ				1.11

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-003 (Pough 4A)	**Units:**	Percent
Lab Code:	E2200954-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.2583g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	55.4		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-004 (Pough 4B)	**Units:**	ng/Kg
Lab Code:	E2200954-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:54
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.193g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540023	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.460	0.856			1
1,2,3,7,8-PeCDD	ND	U	0.418	4.28			1
1,2,3,6,7,8-HxCDD	ND	U	0.286	4.28			1
1,2,3,4,7,8-HxCDD	ND	U	0.318	4.28			1
1,2,3,7,8,9-HxCDD	ND	U	0.301	4.28			1
1,2,3,4,6,7,8-HpCDD	4.96		0.413	4.28	1.02	1.000	1
OCDD	81.6		2.04	8.56	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.384	0.856			1
1,2,3,7,8-PeCDF	ND	U	0.360	4.28			1
2,3,4,7,8-PeCDF	ND	U	0.339	4.28			1
1,2,3,6,7,8-HxCDF	0.116**JK**		0.0940	4.28	0.55	1.000	1
1,2,3,7,8,9-HxCDF	0.379**JK**		0.135	4.28	0.88	1.000	1
1,2,3,4,7,8-HxCDF	0.167**JK**		0.0867	4.28	2.07	1.000	1
2,3,4,6,7,8-HxCDF	0.133**JK**		0.0805	4.28	1.57	1.001	1
1,2,3,4,6,7,8-HpCDF	1.32**JK**		0.0922	4.28	1.47	1.000	1
1,2,3,4,7,8,9-HpCDF	0.204**JK**		0.114	4.28	2.76	1.000	1
OCDF	5.71**J**		0.633	8.56	0.95	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-004 (Pough 4B)	**Units:**	ng/Kg
Lab Code:	E2200954-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:54
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.193g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540023	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.460	0.856			1
Total Penta-Dioxins	ND	U	0.418	4.28			1
Total Hexa-Dioxins	2.08**J**		0.301	4.28	1.30		1
Total Hepta-Dioxins	12.3		0.413	4.28	1.08		1
Total Tetra-Furans	ND	U	0.384	0.856			1
Total Penta-Furans	ND	U	0.349	4.28			1
Total Hexa-Furans	0.534**J**		0.0958	4.28	1.35		1
Total Hepta-Furans	1.90**J**		0.103	4.28	1.03		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-004 (Pough 4B)	**Units:**	Percent
Lab Code:	E2200954-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 16:54
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.193g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540023	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	492.062	25	**Y**	40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	393.126	20	**Y**	40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	375.383	19	**Y**	40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	432.767	22	**Y**	40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	330.427	17	**Y**	40-135	1.07	1.068
13C-OCDD	4000	420.971	11	**Y**	40-135	0.88	1.140
13C-2,3,7,8-TCDF	2000	452.153	23	**Y**	40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	378.120	19	**Y**	40-135	1.62	1.160
13C-2,3,4,7,8-PeCDF	2000	390.216	20	**Y**	40-135	1.66	1.195
13C-1,2,3,4,7,8-HxCDF	2000	422.170	21	**Y**	40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	381.958	19	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	347.314	17	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	468.738	23	**Y**	40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	268.479	13	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	290.919	15	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	413.841	52		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-004 (Pough 4B)	**Units:**	ng/Kg
Lab Code:	E2200954-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.460	0.856	1	1	
1,2,3,7,8-PeCDD	ND	0.418	4.28	1	1	
1,2,3,6,7,8-HxCDD	ND	0.286	4.28	1	0.1	
1,2,3,4,7,8-HxCDD	ND	0.318	4.28	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.301	4.28	1	0.1	
1,2,3,4,6,7,8-HpCDD	**4.96**	0.413	4.28	1	0.01	0.0496
OCDD	**81.6**	2.04	8.56	1	0.0003	0.0245
2,3,7,8-TCDF	ND	0.384	0.856	1	0.1	
1,2,3,7,8-PeCDF	ND	0.360	4.28	1	0.03	
2,3,4,7,8-PeCDF	ND	0.339	4.28	1	0.3	
1,2,3,6,7,8-HxCDF	**0.116**	0.0940	4.28	1	0.1	0.0116
1,2,3,7,8,9-HxCDF	**0.379**	0.135	4.28	1	0.1	0.0379
1,2,3,4,7,8-HxCDF	**0.167**	0.0867	4.28	1	0.1	0.0167
2,3,4,6,7,8-HxCDF	**0.133**	0.0805	4.28	1	0.1	0.0133
1,2,3,4,6,7,8-HpCDF	**1.32**	0.0922	4.28	1	0.01	0.0132
1,2,3,4,7,8,9-HpCDF	**0.204**	0.114	4.28	1	0.01	0.00204
OCDF	**5.71**	0.633	8.56	1	0.0003	0.00171
		Total TEQ				0.171

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 13:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-004 (Pough 4B)	**Units:**	Percent
Lab Code:	E2200954-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.1746g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.3		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-005 (Pough 5A)	**Units:**	ng/Kg
Lab Code:	E2200954-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 17:42
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540024	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.342**JK**		0.226	0.841	0.33	1.002	1
1,2,3,7,8-PeCDD	0.504**JK**		0.176	4.21	0.93	1.000	1
1,2,3,6,7,8-HxCDD	4.90		0.0916	4.21	1.41	1.000	1
1,2,3,4,7,8-HxCDD	1.39**JK**		0.0990	4.21	0.97	1.000	1
1,2,3,7,8,9-HxCDD	2.70**J**		0.0953	4.21	1.41	1.007	1
1,2,3,4,6,7,8-HpCDD	182		0.329	4.21	1.04	1.000	1
OCDD	1810		13.6	13.6	0.87	1.000	1
2,3,7,8-TCDF	2.80**K**		0.228	0.841	0.51	1.001	1
1,2,3,7,8-PeCDF	ND	U	0.278	4.21			1
2,3,4,7,8-PeCDF	1.34**JK**		0.270	4.21	1.95	1.001	1
1,2,3,6,7,8-HxCDF	1.30**JK**		0.284	4.21	1.45	1.000	1
1,2,3,7,8,9-HxCDF	0.613**JK**		0.360	4.21	0.79	1.001	1
1,2,3,4,7,8-HxCDF	2.88**J**		0.255	4.21	1.22	1.000	1
2,3,4,6,7,8-HxCDF	0.868**JK**		0.217	4.21	1.48	1.000	1
1,2,3,4,6,7,8-HpCDF	39.2		0.521	4.21	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	3.44**J**		0.585	4.21	0.95	1.001	1
OCDF	502		1.79	8.41	0.84	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-005 (Pough 5A)	**Units:**	ng/Kg
Lab Code:	E2200954-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 17:42
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540024	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	1.32		0.226	0.841	0.68		1
Total Penta-Dioxins	1.27**J**		0.176	4.21	1.52		1
Total Hexa-Dioxins	41.6		0.0951	4.21	1.16		1
Total Hepta-Dioxins	383		0.329	4.21	1.01		1
Total Tetra-Furans	48.4		0.228	0.841	0.67		1
Total Penta-Furans	1.06**J**		0.274	4.21	1.52		1
Total Hexa-Furans	25.8		0.271	4.21	1.16		1
Total Hepta-Furans	129		0.552	4.21	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-005 (Pough 5A)	**Units:**	Percent
Lab Code:	E2200954-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 17:42
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.318g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540024	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	819.345	41		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	557.833	28	**Y**	40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	506.656	25	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	555.635	28	**Y**	40-135	1.23	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	383.739	19	**Y**	40-135	1.07	1.068
13C-OCDD	4000	481.990	12	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	801.837	40		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	580.756	29	**Y**	40-135	1.60	1.160
13C-2,3,4,7,8-PeCDF	2000	585.894	29	**Y**	40-135	1.60	1.195
13C-1,2,3,4,7,8-HxCDF	2000	528.638	26	**Y**	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	468.629	23	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	480.370	24	**Y**	40-135	0.49	1.009
13C-2,3,4,6,7,8-HxCDF	2000	662.339	33	**Y**	40-135	0.49	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	309.422	15	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	346.039	17	**Y**	40-135	0.40	1.080
37Cl-2,3,7,8-TCDD	800	477.183	60		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-005 (Pough 5A)	**Units:**	ng/Kg
Lab Code:	E2200954-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.342**	0.226	0.841	1	1	0.342
1,2,3,7,8-PeCDD	**0.504**	0.176	4.21	1	1	0.504
1,2,3,6,7,8-HxCDD	**4.90**	0.0916	4.21	1	0.1	0.490
1,2,3,4,7,8-HxCDD	**1.39**	0.0990	4.21	1	0.1	0.139
1,2,3,7,8,9-HxCDD	**2.70**	0.0953	4.21	1	0.1	0.270
1,2,3,4,6,7,8-HpCDD	**182**	0.329	4.21	1	0.01	1.82
OCDD	**1810**	13.6	13.6	1	0.0003	0.543
2,3,7,8-TCDF	**2.80**	0.228	0.841	1	0.1	0.280
1,2,3,7,8-PeCDF	ND	0.278	4.21	1	0.03	
2,3,4,7,8-PeCDF	**1.34**	0.270	4.21	1	0.3	0.402
1,2,3,6,7,8-HxCDF	**1.30**	0.284	4.21	1	0.1	0.130
1,2,3,7,8,9-HxCDF	**0.613**	0.360	4.21	1	0.1	0.0613
1,2,3,4,7,8-HxCDF	**2.88**	0.255	4.21	1	0.1	0.288
2,3,4,6,7,8-HxCDF	**0.868**	0.217	4.21	1	0.1	0.0868
1,2,3,4,6,7,8-HpCDF	**39.2**	0.521	4.21	1	0.01	0.392
1,2,3,4,7,8,9-HpCDF	**3.44**	0.585	4.21	1	0.01	0.0344
OCDF	**502**	1.79	8.41	1	0.0003	0.151
		Total TEQ				5.93

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-005 (Pough 5A)	**Units:**	Percent
Lab Code:	E2200954-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.0841g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.6		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:35
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-006 (Pough 5B)	**Units:**	ng/Kg
Lab Code:	E2200954-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 00:25
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.256g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540032	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.195	0.826			1
1,2,3,7,8-PeCDD	0.371**JK**		0.161	4.13	1.01	1.000	1
1,2,3,6,7,8-HxCDD	0.493**JK**		0.166	4.13	0.94	1.000	1
1,2,3,4,7,8-HxCDD	0.453**BJK**		0.181	4.13	1.64	1.000	1
1,2,3,7,8,9-HxCDD	0.604**J**		0.173	4.13	1.06	1.007	1
1,2,3,4,6,7,8-HpCDD	7.12		0.103	4.13	1.00	1.000	1
OCDD	142**K**		1.88	8.26	1.04	1.000	1
2,3,7,8-TCDF	ND	U	0.126	0.826			1
1,2,3,7,8-PeCDF	ND	U	0.228	4.13			1
2,3,4,7,8-PeCDF	ND	U	0.221	4.13			1
1,2,3,6,7,8-HxCDF	0.322**BJK**		0.0584	4.13	0.75	1.000	1
1,2,3,7,8,9-HxCDF	0.518**J**		0.0820	4.13	1.07	1.001	1
1,2,3,4,7,8-HxCDF	0.164**BJK**		0.0529	4.13	0.54	1.000	1
2,3,4,6,7,8-HxCDF	0.313**JK**		0.0462	4.13	0.78	1.000	1
1,2,3,4,6,7,8-HpCDF	3.44**JK**		0.241	4.13	0.74	1.000	1
1,2,3,4,7,8,9-HpCDF	0.679**BJK**		0.291	4.13	2.25	1.000	1
OCDF	19.5**K**		0.416	8.26	1.05	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:35
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-006 (Pough 5B)	**Units:**	ng/Kg
Lab Code:	E2200954-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 00:25
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.256g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540032	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.195	0.826			1
Total Penta-Dioxins	0.490**J**		0.161	4.13	1.39		1
Total Hexa-Dioxins	4.04**J**		0.173	4.13	1.18		1
Total Hepta-Dioxins	21.9		0.103	4.13	0.98		1
Total Tetra-Furans	0.719**J**		0.126	0.826	0.66		1
Total Penta-Furans	ND	U	0.225	4.13			1
Total Hexa-Furans	0.518**J**		0.0576	4.13	1.07		1
Total Hepta-Furans	2.61**J**		0.265	4.13	0.94		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:35
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-006 (Pough 5B)	**Units:**	Percent
Lab Code:	E2200954-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 00:25
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.256g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540032	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540028

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	840.653	42		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	617.522	31	**Y**	40-135	1.57	1.206
13C-1,2,3,4,7,8-HxCDD	2000	610.227	31	**Y**	40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	698.844	35	**Y**	40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	507.171	25	**Y**	40-135	1.05	1.068
13C-OCDD	4000	612.892	15	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	796.270	40		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	616.805	31	**Y**	40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	618.758	31	**Y**	40-135	1.60	1.195
13C-1,2,3,4,7,8-HxCDF	2000	662.832	33	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	602.148	30	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	548.040	27	**Y**	40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	804.540	40		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	404.317	20	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	435.133	22	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	405.710	51		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:35
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-006 (Pough 5B)	**Units:**	ng/Kg
Lab Code:	E2200954-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.195	0.826	1	1	
1,2,3,7,8-PeCDD	**0.371**	0.161	4.13	1	1	0.371
1,2,3,6,7,8-HxCDD	**0.493**	0.166	4.13	1	0.1	0.0493
1,2,3,4,7,8-HxCDD	**0.453**	0.181	4.13	1	0.1	0.0453
1,2,3,7,8,9-HxCDD	**0.604**	0.173	4.13	1	0.1	0.0604
1,2,3,4,6,7,8-HpCDD	**7.12**	0.103	4.13	1	0.01	0.0712
OCDD	**142**	1.88	8.26	1	0.0003	0.0426
2,3,7,8-TCDF	ND	0.126	0.826	1	0.1	
1,2,3,7,8-PeCDF	ND	0.228	4.13	1	0.03	
2,3,4,7,8-PeCDF	ND	0.221	4.13	1	0.3	
1,2,3,6,7,8-HxCDF	**0.322**	0.0584	4.13	1	0.1	0.0322
1,2,3,7,8,9-HxCDF	**0.518**	0.0820	4.13	1	0.1	0.0518
1,2,3,4,7,8-HxCDF	**0.164**	0.0529	4.13	1	0.1	0.0164
2,3,4,6,7,8-HxCDF	**0.313**	0.0462	4.13	1	0.1	0.0313
1,2,3,4,6,7,8-HpCDF	**3.44**	0.241	4.13	1	0.01	0.0344
1,2,3,4,7,8,9-HpCDF	**0.679**	0.291	4.13	1	0.01	0.00679
OCDF	**19.5**	0.416	8.26	1	0.0003	0.00585
		Total TEQ				0.819

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	09/23/22 10:35
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265452-006 (Pough 5B)	**Units:**	Percent
Lab Code:	E2200954-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.239g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.0		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0448	0.490			1
1,2,3,7,8-PeCDD	ND	U	0.0279	2.45			1
1,2,3,6,7,8-HxCDD	0.0188**JK**		0.0180	2.45	5.33	1.000	1
1,2,3,4,7,8-HxCDD	0.147**JK**		0.0196	2.45	1.02	1.000	1
1,2,3,7,8,9-HxCDD	0.0303**JK**		0.0188	2.45	0.58	1.007	1
1,2,3,4,6,7,8-HpCDD	0.290**J**		0.00981	2.45	1.09	1.001	1
OCDD	2.76**J**		0.119	4.90	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0580	0.490			1
1,2,3,7,8-PeCDF	ND	U	0.0354	2.45			1
2,3,4,7,8-PeCDF	ND	U	0.0358	2.45			1
1,2,3,6,7,8-HxCDF	0.0330**J**		0.0143	2.45	1.16	1.000	1
1,2,3,7,8,9-HxCDF	0.0281**JK**		0.0167	2.45	0.34	1.001	1
1,2,3,4,7,8-HxCDF	0.0436**J**		0.0128	2.45	1.20	1.000	1
2,3,4,6,7,8-HxCDF	0.0144**JK**		0.0121	2.45	0.68	1.001	1
1,2,3,4,6,7,8-HpCDF	0.123**JK**		0.00344	2.45	0.80	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0891**J**		0.00353	2.45	1.10	1.000	1
OCDF	0.336**JK**		0.0429	4.90	0.75	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0448	0.490			1
Total Penta-Dioxins	0.0675**J**		0.0279	2.45	1.35		1
Total Hexa-Dioxins	0.0545**J**		0.0188	2.45	1.41		1
Total Hepta-Dioxins	0.599**J**		0.00981	2.45	0.98		1
Total Tetra-Furans	ND	U	0.0580	0.490			1
Total Penta-Furans	ND	U	0.0356	2.45			1
Total Hexa-Furans	0.0767**J**		0.0138	2.45	1.20		1
Total Hepta-Furans	0.0891**J**		0.00353	2.45	1.10		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1338.963	67		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1180.236	59		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1011.887	51		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1148.996	57		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1095.539	55		40-135	1.06	1.068
13C-OCDD	4000	1640.166	41		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1158.315	58		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1170.581	59		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	1103.238	55		40-135	1.55	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1130.728	57		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	975.985	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1039.819	52		40-135	0.53	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1243.776	62		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	859.279	43		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1058.480	53		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	683.377	85		40-135	NA	1.024

Accuracy & Precision

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Analyzed:**	11/14/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785786

	Lab Control Sample EQ2200474-02			Duplicate Lab Control Sample EQ2200474-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	87.0	98.6	88	88.5	98.7	90	70-130	2	25
1,2,3,4,7,8-HxCDD	93.1	98.6	94	97.1	98.7	98	70-130	4	25
1,2,3,6,7,8-HxCDD	86.8	98.6	88	88.9	98.7	90	70-130	2	25
1,2,3,7,8,9-HxCDD	92.0	98.6	93	97.5	98.7	99	70-130	6	25
1,2,3,7,8-PeCDD	88.7	98.6	90	90.8	98.7	92	70-130	2	25
2,3,7,8-TCDD	15.1	19.7	76	15.3	19.7	78	70-130	2	25
OCDD	184	197	93	187	197	95	70-130	1	25
1,2,3,4,6,7,8-HpCDF	91.2	98.6	92	96.5	98.7	98	70-130	6	25
1,2,3,4,7,8,9-HpCDF	85.4	98.6	87	88.0	98.7	89	70-130	3	25
1,2,3,4,7,8-HxCDF	85.4	98.6	87	88.5	98.7	90	70-130	4	25
1,2,3,6,7,8-HxCDF	94.1	98.6	95	96.8	98.7	98	70-130	3	25
1,2,3,7,8,9-HxCDF	85.8	98.6	87	89.3	98.7	91	70-130	4	25
1,2,3,7,8-PeCDF	86.8	98.6	88	90.2	98.7	91	70-130	4	25
2,3,4,6,7,8-HxCDF	77.8	98.6	79	80.8	98.7	82	70-130	4	25
2,3,4,7,8-PeCDF	90.9	98.6	92	97.8	98.7	99	70-130	7	25
2,3,7,8-TCDF	17.4	19.7	88	18.4	19.7	93	70-130	5	25
OCDF	191	197	97	198	197	100	70-130	4	25

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.1		0.0693	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	88.7		0.0538	2.47	1.54	1.001	1
1,2,3,6,7,8-HxCDD	86.8		0.0114	2.47	1.31	1.000	1
1,2,3,4,7,8-HxCDD	93.1		0.0129	2.47	1.24	1.000	1
1,2,3,7,8,9-HxCDD	92.0		0.0121	2.47	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	87.0		0.0360	2.47	1.04	1.000	1
OCDD	184		1.08	4.93	0.85	1.000	1
2,3,7,8-TCDF	17.4		0.0539	0.493	0.73	1.001	1
1,2,3,7,8-PeCDF	86.8		0.237	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	90.9		0.249	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	94.1		0.00484	2.47	1.21	1.000	1
1,2,3,7,8,9-HxCDF	85.8		0.00622	2.47	1.17	1.000	1
1,2,3,4,7,8-HxCDF	85.4		0.00444	2.47	1.21	1.000	1
2,3,4,6,7,8-HxCDF	77.8		0.00415	2.47	1.19	1.000	1
1,2,3,4,6,7,8-HpCDF	91.2		0.166	2.47	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	85.4		0.193	2.47	1.03	1.000	1
OCDF	191		0.759	4.93	0.87	1.004	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.1		0.0693	0.493	0.73		1
Total Penta-Dioxins	88.7		0.0538	2.47	1.54		1
Total Hexa-Dioxins	272		0.0121	2.47	1.24		1
Total Hepta-Dioxins	87.0		0.0360	2.47	1.04		1
Total Tetra-Furans	17.4		0.0539	0.493	0.73		1
Total Penta-Furans	178		0.243	2.47	1.49		1
Total Hexa-Furans	343		0.00484	2.47	1.21		1
Total Hepta-Furans	177		0.179	2.47	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1393.184	70		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	1111.305	56		40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1180.259	59		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1385.600	69		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1173.807	59		40-135	1.05	1.068
13C-OCDD	4000	1675.477	42		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1177.771	59		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1121.285	56		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1032.181	52		40-135	1.59	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1310.050	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1165.428	58		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1208.008	60		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1437.627	72		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	978.253	49		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1074.929	54		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	587.310	73		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.3		0.0757	0.493	0.76	1.001	1
1,2,3,7,8-PeCDD	90.8		0.0433	2.47	1.59	1.001	1
1,2,3,6,7,8-HxCDD	88.9		0.0250	2.47	1.29	1.000	1
1,2,3,4,7,8-HxCDD	97.1		0.0279	2.47	1.25	1.000	1
1,2,3,7,8,9-HxCDD	97.5		0.0264	2.47	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	88.5		0.0127	2.47	1.06	1.000	1
OCDD	187		0.987	4.93	0.90	1.000	1
2,3,7,8-TCDF	18.4		0.0525	0.493	0.74	1.001	1
1,2,3,7,8-PeCDF	90.2		0.326	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	97.8		0.338	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	96.8		0.0146	2.47	1.23	1.000	1
1,2,3,7,8,9-HxCDF	89.3		0.0188	2.47	1.16	1.000	1
1,2,3,4,7,8-HxCDF	88.5		0.0133	2.47	1.18	1.000	1
2,3,4,6,7,8-HxCDF	80.8		0.0131	2.47	1.17	1.000	1
1,2,3,4,6,7,8-HpCDF	96.5		0.195	2.47	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	88.0		0.207	2.47	0.99	1.000	1
OCDF	198		0.104	4.93	0.92	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.0757	0.493	0.76		1
Total Penta-Dioxins	91.0		0.0433	2.47	1.59		1
Total Hexa-Dioxins	284		0.0264	2.47	1.25		1
Total Hepta-Dioxins	88.5		0.0127	2.47	1.06		1
Total Tetra-Furans	18.4		0.0525	0.493	0.74		1
Total Penta-Furans	189		0.332	2.47	1.49		1
Total Hexa-Furans	355		0.0147	2.47	1.18		1
Total Hepta-Furans	184		0.201	2.47	0.98		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200954
Project:	3265452	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1588.992	79		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1304.869	65		40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1328.136	66		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1501.285	75		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1221.116	61		40-135	1.03	1.068
13C-OCDD	4000	1592.697	40		40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	1325.123	66		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1294.477	65		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1186.517	59		40-135	1.55	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1479.181	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1310.113	66		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1303.443	65		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1570.879	79		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	984.188	49		40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1155.790	58		40-135	0.43	1.081
37Cl-2,3,7,8-TCDD	800	696.874	87		40-135	NA	1.025

ANALYTICAL REPORT

Lab Number:	L2253003
Client:	Normandeau Associates, Inc. 600 Beach Road West Haverstraw, NY 10993
ATTN:	Mike Taylor
Phone:	(603) 637-1193
Project Name:	CHPE HUDSON RIVER
Project Number:	24711.001
Report Date:	10/06/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253003-01	POUGH 1A	SEDIMENT	KINGSTON, NY	09/23/22 11:30	09/27/22
L2253003-02	POUGH 1B	SEDIMENT	KINGSTON, NY	09/23/22 11:45	09/27/22
L2253003-03	POUGH 2A	SEDIMENT	KINGSTON, NY	09/23/22 09:20	09/27/22
L2253003-04	POUGH 2B	SEDIMENT	KINGSTON, NY	09/23/22 09:30	09/27/22
L2253003-05	POUGH 3A	SEDIMENT	KINGSTON, NY	09/23/22 12:30	09/27/22
L2253003-06	POUGH 3B	SEDIMENT	KINGSTON, NY	09/23/22 12:45	09/27/22
L2253003-07	POUGH 4A	SEDIMENT	KINGSTON, NY	09/23/22 13:30	09/27/22
L2253003-08	POUGH 4B	SEDIMENT	KINGSTON, NY	09/23/22 13:45	09/27/22
L2253003-09	POUGH 5A	SEDIMENT	KINGSTON, NY	09/23/22 10:20	09/27/22
L2253003-10	POUGH 5B	SEDIMENT	KINGSTON, NY	09/23/22 10:35	09/27/22
L2253003-11	HYDE PARK 1A	SEDIMENT	KINGSTON, NY	09/25/22 12:30	09/27/22
L2253003-12	HYDE PARK 1B	SEDIMENT	KINGSTON, NY	09/25/22 12:40	09/27/22
L2253003-13	HYDE PARK 2A	SEDIMENT	KINGSTON, NY	09/25/22 11:40	09/27/22
L2253003-14	HYDE PARK 2B	SEDIMENT	KINGSTON, NY	09/25/22 11:45	09/27/22
L2253003-15	HYDE PARK 3A	SEDIMENT	KINGSTON, NY	09/25/22 09:55	09/27/22
L2253003-16	HYDE PARK 3B	SEDIMENT	KINGSTON, NY	09/25/22 10:05	09/27/22
L2253003-17	HYDE PARK 4A	SEDIMENT	KINGSTON, NY	09/25/22 09:05	09/27/22
L2253003-18	HYDE PARK 4B	SEDIMENT	KINGSTON, NY	09/25/22 09:15	09/27/22
L2253003-19	HYDE PARK 5A	SEDIMENT	KINGSTON, NY	09/25/22 10:40	09/27/22
L2253003-20	HYDE PARK 5B	SEDIMENT	KINGSTON, NY	09/25/22 10:50	09/27/22

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/06/22

ORGANICS

PCBS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-01
Client ID: POUGH 1A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 11:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 18:04
Analyst: PS
Percent Solids: 53%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.712	J	ug/kg	0.756	0.378	1
Cl3-BZ#18	1.35		ug/kg	0.756	0.378	1
Cl3-BZ#28	1.67		ug/kg	0.756	0.378	1
Cl4-BZ#44	0.906		ug/kg	0.756	0.378	1
Cl4-BZ#49	1.11		ug/kg	0.756	0.378	1
Cl4-BZ#52	1.74		ug/kg	0.756	0.378	1
Cl4-BZ#66	0.723	J	ug/kg	0.756	0.378	1
Cl5-BZ#87	ND		ug/kg	0.756	0.378	1
Cl5-BZ#101	1.29		ug/kg	0.756	0.378	1
Cl5-BZ#105	ND		ug/kg	0.756	0.378	1
Cl5-BZ#118	0.412	J	ug/kg	0.756	0.378	1
Cl6-BZ#128	ND		ug/kg	0.756	0.378	1
Cl6-BZ#138	0.555	J	ug/kg	0.756	0.378	1
Cl6-BZ#153	0.503	J	ug/kg	0.756	0.378	1
Cl7-BZ#170	ND		ug/kg	0.756	0.378	1
Cl7-BZ#180	ND		ug/kg	0.756	0.378	1
Cl7-BZ#183	ND		ug/kg	0.756	0.378	1
Cl7-BZ#184	ND		ug/kg	0.756	0.378	1
Cl7-BZ#187	ND		ug/kg	0.756	0.378	1
Cl8-BZ#195	ND		ug/kg	0.756	0.378	1
Cl9-BZ#206	0.413	J	ug/kg	0.756	0.378	1
Cl10-BZ#209	0.572	J	ug/kg	0.756	0.378	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	75		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-02
Client ID: POUGH 1B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 18:35
Analyst: PS
Percent Solids: 56%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.704	0.352	1
Cl3-BZ#18	ND		ug/kg	0.704	0.352	1
Cl3-BZ#28	ND		ug/kg	0.704	0.352	1
Cl4-BZ#44	ND		ug/kg	0.704	0.352	1
Cl4-BZ#49	ND		ug/kg	0.704	0.352	1
Cl4-BZ#52	ND		ug/kg	0.704	0.352	1
Cl4-BZ#66	ND		ug/kg	0.704	0.352	1
Cl5-BZ#87	ND		ug/kg	0.704	0.352	1
Cl5-BZ#101	ND		ug/kg	0.704	0.352	1
Cl5-BZ#105	ND		ug/kg	0.704	0.352	1
Cl5-BZ#118	ND		ug/kg	0.704	0.352	1
Cl6-BZ#128	ND		ug/kg	0.704	0.352	1
Cl6-BZ#138	ND		ug/kg	0.704	0.352	1
Cl6-BZ#153	ND		ug/kg	0.704	0.352	1
Cl7-BZ#170	ND		ug/kg	0.704	0.352	1
Cl7-BZ#180	ND		ug/kg	0.704	0.352	1
Cl7-BZ#183	ND		ug/kg	0.704	0.352	1
Cl7-BZ#184	ND		ug/kg	0.704	0.352	1
Cl7-BZ#187	ND		ug/kg	0.704	0.352	1
Cl8-BZ#195	ND		ug/kg	0.704	0.352	1
Cl9-BZ#206	ND		ug/kg	0.704	0.352	1
Cl10-BZ#209	ND		ug/kg	0.704	0.352	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	67		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-03
Client ID: POUGH 2A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 09:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 19:06
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	20.8		ug/kg	0.644	0.322	1
Cl3-BZ#18	38.8		ug/kg	0.644	0.322	1
Cl3-BZ#28	26.7		ug/kg	0.644	0.322	1
Cl4-BZ#44	10.4		ug/kg	0.644	0.322	1
Cl4-BZ#49	32.1		ug/kg	0.644	0.322	1
Cl4-BZ#52	33.5		ug/kg	0.644	0.322	1
Cl4-BZ#66	12.8		ug/kg	0.644	0.322	1
Cl5-BZ#87	2.28		ug/kg	0.644	0.322	1
Cl5-BZ#101	10.2		ug/kg	0.644	0.322	1
Cl5-BZ#105	2.14		ug/kg	0.644	0.322	1
Cl5-BZ#118	6.20		ug/kg	0.644	0.322	1
Cl6-BZ#128	1.16		ug/kg	0.644	0.322	1
Cl6-BZ#138	7.37		ug/kg	0.644	0.322	1
Cl6-BZ#153	3.76		ug/kg	0.644	0.322	1
Cl7-BZ#170	1.16		ug/kg	0.644	0.322	1
Cl7-BZ#180	1.67		ug/kg	0.644	0.322	1
Cl7-BZ#183	0.403	J	ug/kg	0.644	0.322	1
Cl7-BZ#184	ND		ug/kg	0.644	0.322	1
Cl7-BZ#187	1.31		ug/kg	0.644	0.322	1
Cl8-BZ#195	ND		ug/kg	0.644	0.322	1
Cl9-BZ#206	0.828		ug/kg	0.644	0.322	1
Cl10-BZ#209	0.533	J	ug/kg	0.644	0.322	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-04
Client ID: POUGH 2B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 09:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 19:38
Analyst: PS
Percent Solids: 56%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.478	J	ug/kg	0.690	0.345	1
Cl3-BZ#18	0.925		ug/kg	0.690	0.345	1
Cl3-BZ#28	0.495	J	ug/kg	0.690	0.345	1
Cl4-BZ#44	ND		ug/kg	0.690	0.345	1
Cl4-BZ#49	0.881		ug/kg	0.690	0.345	1
Cl4-BZ#52	0.852		ug/kg	0.690	0.345	1
Cl4-BZ#66	ND		ug/kg	0.690	0.345	1
Cl5-BZ#87	ND		ug/kg	0.690	0.345	1
Cl5-BZ#101	ND		ug/kg	0.690	0.345	1
Cl5-BZ#105	ND		ug/kg	0.690	0.345	1
Cl5-BZ#118	ND		ug/kg	0.690	0.345	1
Cl6-BZ#128	ND		ug/kg	0.690	0.345	1
Cl6-BZ#138	ND		ug/kg	0.690	0.345	1
Cl6-BZ#153	ND		ug/kg	0.690	0.345	1
Cl7-BZ#170	ND		ug/kg	0.690	0.345	1
Cl7-BZ#180	ND		ug/kg	0.690	0.345	1
Cl7-BZ#183	ND		ug/kg	0.690	0.345	1
Cl7-BZ#184	ND		ug/kg	0.690	0.345	1
Cl7-BZ#187	ND		ug/kg	0.690	0.345	1
Cl8-BZ#195	ND		ug/kg	0.690	0.345	1
Cl9-BZ#206	ND		ug/kg	0.690	0.345	1
Cl10-BZ#209	ND		ug/kg	0.690	0.345	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		50-125
BZ 198	99		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-05
Client ID: POUGH 3A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 20:09
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	3.58		ug/kg	0.683	0.341	1
Cl3-BZ#18	6.76		ug/kg	0.683	0.341	1
Cl3-BZ#28	7.84		ug/kg	0.683	0.341	1
Cl4-BZ#44	3.27		ug/kg	0.683	0.341	1
Cl4-BZ#49	7.51		ug/kg	0.683	0.341	1
Cl4-BZ#52	8.06		ug/kg	0.683	0.341	1
Cl4-BZ#66	3.65		ug/kg	0.683	0.341	1
Cl5-BZ#87	0.709		ug/kg	0.683	0.341	1
Cl5-BZ#101	2.82		ug/kg	0.683	0.341	1
Cl5-BZ#105	0.804		ug/kg	0.683	0.341	1
Cl5-BZ#118	1.65		ug/kg	0.683	0.341	1
Cl6-BZ#128	ND		ug/kg	0.683	0.341	1
Cl6-BZ#138	1.36		ug/kg	0.683	0.341	1
Cl6-BZ#153	0.908		ug/kg	0.683	0.341	1
Cl7-BZ#170	0.351	J	ug/kg	0.683	0.341	1
Cl7-BZ#180	0.377	J	ug/kg	0.683	0.341	1
Cl7-BZ#183	ND		ug/kg	0.683	0.341	1
Cl7-BZ#184	ND		ug/kg	0.683	0.341	1
Cl7-BZ#187	ND		ug/kg	0.683	0.341	1
Cl8-BZ#195	ND		ug/kg	0.683	0.341	1
Cl9-BZ#206	ND		ug/kg	0.683	0.341	1
Cl10-BZ#209	ND		ug/kg	0.683	0.341	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	61		50-125
BZ 198	84		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-06
Client ID: POUGH 3B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 20:40
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.654	0.327	1
Cl3-BZ#18	ND		ug/kg	0.654	0.327	1
Cl3-BZ#28	ND		ug/kg	0.654	0.327	1
Cl4-BZ#44	ND		ug/kg	0.654	0.327	1
Cl4-BZ#49	ND		ug/kg	0.654	0.327	1
Cl4-BZ#52	ND		ug/kg	0.654	0.327	1
Cl4-BZ#66	ND		ug/kg	0.654	0.327	1
Cl5-BZ#87	ND		ug/kg	0.654	0.327	1
Cl5-BZ#101	ND		ug/kg	0.654	0.327	1
Cl5-BZ#105	ND		ug/kg	0.654	0.327	1
Cl5-BZ#118	ND		ug/kg	0.654	0.327	1
Cl6-BZ#128	ND		ug/kg	0.654	0.327	1
Cl6-BZ#138	ND		ug/kg	0.654	0.327	1
Cl6-BZ#153	ND		ug/kg	0.654	0.327	1
Cl7-BZ#170	ND		ug/kg	0.654	0.327	1
Cl7-BZ#180	ND		ug/kg	0.654	0.327	1
Cl7-BZ#183	ND		ug/kg	0.654	0.327	1
Cl7-BZ#184	ND		ug/kg	0.654	0.327	1
Cl7-BZ#187	ND		ug/kg	0.654	0.327	1
Cl8-BZ#195	ND		ug/kg	0.654	0.327	1
Cl9-BZ#206	ND		ug/kg	0.654	0.327	1
Cl10-BZ#209	ND		ug/kg	0.654	0.327	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		50-125
BZ 198	91		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-07
Client ID: POUGH 4A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 21:12
Analyst: PS
Percent Solids: 55%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	3.82		ug/kg	0.715	0.358	1
Cl3-BZ#18	3.19		ug/kg	0.715	0.358	1
Cl3-BZ#28	3.46		ug/kg	0.715	0.358	1
Cl4-BZ#44	1.53		ug/kg	0.715	0.358	1
Cl4-BZ#49	2.78		ug/kg	0.715	0.358	1
Cl4-BZ#52	2.84		ug/kg	0.715	0.358	1
Cl4-BZ#66	1.94		ug/kg	0.715	0.358	1
Cl5-BZ#87	0.666	J	ug/kg	0.715	0.358	1
Cl5-BZ#101	1.58		ug/kg	0.715	0.358	1
Cl5-BZ#105	0.552	J	ug/kg	0.715	0.358	1
Cl5-BZ#118	0.987		ug/kg	0.715	0.358	1
Cl6-BZ#128	0.388	J	ug/kg	0.715	0.358	1
Cl6-BZ#138	1.40		ug/kg	0.715	0.358	1
Cl6-BZ#153	0.678	J	ug/kg	0.715	0.358	1
Cl7-BZ#170	ND		ug/kg	0.715	0.358	1
Cl7-BZ#180	ND		ug/kg	0.715	0.358	1
Cl7-BZ#183	ND		ug/kg	0.715	0.358	1
Cl7-BZ#184	ND		ug/kg	0.715	0.358	1
Cl7-BZ#187	ND		ug/kg	0.715	0.358	1
Cl8-BZ#195	ND		ug/kg	0.715	0.358	1
Cl9-BZ#206	ND		ug/kg	0.715	0.358	1
Cl10-BZ#209	ND		ug/kg	0.715	0.358	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	73		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-08
Client ID: POUGH 4B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 21:43
Analyst: PS
Percent Solids: 53%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.714	0.357	1
Cl3-BZ#18	ND		ug/kg	0.714	0.357	1
Cl3-BZ#28	ND		ug/kg	0.714	0.357	1
Cl4-BZ#44	ND		ug/kg	0.714	0.357	1
Cl4-BZ#49	ND		ug/kg	0.714	0.357	1
Cl4-BZ#52	ND		ug/kg	0.714	0.357	1
Cl4-BZ#66	ND		ug/kg	0.714	0.357	1
Cl5-BZ#87	ND		ug/kg	0.714	0.357	1
Cl5-BZ#101	ND		ug/kg	0.714	0.357	1
Cl5-BZ#105	ND		ug/kg	0.714	0.357	1
Cl5-BZ#118	ND		ug/kg	0.714	0.357	1
Cl6-BZ#128	ND		ug/kg	0.714	0.357	1
Cl6-BZ#138	ND		ug/kg	0.714	0.357	1
Cl6-BZ#153	ND		ug/kg	0.714	0.357	1
Cl7-BZ#170	ND		ug/kg	0.714	0.357	1
Cl7-BZ#180	ND		ug/kg	0.714	0.357	1
Cl7-BZ#183	ND		ug/kg	0.714	0.357	1
Cl7-BZ#184	ND		ug/kg	0.714	0.357	1
Cl7-BZ#187	ND		ug/kg	0.714	0.357	1
Cl8-BZ#195	ND		ug/kg	0.714	0.357	1
Cl9-BZ#206	ND		ug/kg	0.714	0.357	1
Cl10-BZ#209	ND		ug/kg	0.714	0.357	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	95		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-09
Client ID: POUGH 5A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 10:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 22:14
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	74.8		ug/kg	0.625	0.312	1
Cl3-BZ#18	142		ug/kg	0.625	0.312	1
Cl3-BZ#28	65.4		ug/kg	0.625	0.312	1
Cl4-BZ#44	26.2		ug/kg	0.625	0.312	1
Cl4-BZ#49	85.2		ug/kg	0.625	0.312	1
Cl4-BZ#52	97.6		ug/kg	0.625	0.312	1
Cl4-BZ#66	19.5		ug/kg	0.625	0.312	1
Cl5-BZ#87	3.93		ug/kg	0.625	0.312	1
Cl5-BZ#101	17.6		ug/kg	0.625	0.312	1
Cl5-BZ#105	4.13		ug/kg	0.625	0.312	1
Cl5-BZ#118	9.80		ug/kg	0.625	0.312	1
Cl6-BZ#128	1.70		ug/kg	0.625	0.312	1
Cl6-BZ#138	8.51		ug/kg	0.625	0.312	1
Cl6-BZ#153	5.30		ug/kg	0.625	0.312	1
Cl7-BZ#170	1.58		ug/kg	0.625	0.312	1
Cl7-BZ#180	2.40		ug/kg	0.625	0.312	1
Cl7-BZ#183	0.599	J	ug/kg	0.625	0.312	1
Cl7-BZ#184	ND		ug/kg	0.625	0.312	1
Cl7-BZ#187	2.18		ug/kg	0.625	0.312	1
Cl8-BZ#195	ND		ug/kg	0.625	0.312	1
Cl9-BZ#206	1.14		ug/kg	0.625	0.312	1
Cl10-BZ#209	0.378	J	ug/kg	0.625	0.312	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	77		50-125
BZ 198	83		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-10
Client ID: POUGH 5B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 22:45
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	1.32		ug/kg	0.662	0.331	1
Cl3-BZ#18	2.78		ug/kg	0.662	0.331	1
Cl3-BZ#28	1.23		ug/kg	0.662	0.331	1
Cl4-BZ#44	0.660	J	ug/kg	0.662	0.331	1
Cl4-BZ#49	1.74		ug/kg	0.662	0.331	1
Cl4-BZ#52	1.72		ug/kg	0.662	0.331	1
Cl4-BZ#66	0.368	J	ug/kg	0.662	0.331	1
Cl5-BZ#87	ND		ug/kg	0.662	0.331	1
Cl5-BZ#101	0.383	J	ug/kg	0.662	0.331	1
Cl5-BZ#105	ND		ug/kg	0.662	0.331	1
Cl5-BZ#118	ND		ug/kg	0.662	0.331	1
Cl6-BZ#128	ND		ug/kg	0.662	0.331	1
Cl6-BZ#138	ND		ug/kg	0.662	0.331	1
Cl6-BZ#153	ND		ug/kg	0.662	0.331	1
Cl7-BZ#170	ND		ug/kg	0.662	0.331	1
Cl7-BZ#180	ND		ug/kg	0.662	0.331	1
Cl7-BZ#183	ND		ug/kg	0.662	0.331	1
Cl7-BZ#184	ND		ug/kg	0.662	0.331	1
Cl7-BZ#187	ND		ug/kg	0.662	0.331	1
Cl8-BZ#195	ND		ug/kg	0.662	0.331	1
Cl9-BZ#206	ND		ug/kg	0.662	0.331	1
Cl10-BZ#209	ND		ug/kg	0.662	0.331	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	76		50-125
BZ 198	86		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-11
Client ID: HYDE PARK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 23:17
Analyst: PS
Percent Solids: 59%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	21.2		ug/kg	0.655	0.327	1
Cl3-BZ#18	74.1		ug/kg	0.655	0.327	1
Cl3-BZ#28	82.6		ug/kg	0.655	0.327	1
Cl4-BZ#44	31.1		ug/kg	0.655	0.327	1
Cl4-BZ#49	57.2		ug/kg	0.655	0.327	1
Cl4-BZ#52	67.7		ug/kg	0.655	0.327	1
Cl4-BZ#66	39.6		ug/kg	0.655	0.327	1
Cl5-BZ#87	7.79		ug/kg	0.655	0.327	1
Cl5-BZ#101	35.9		ug/kg	0.655	0.327	1
Cl5-BZ#105	7.51		ug/kg	0.655	0.327	1
Cl5-BZ#118	23.9		ug/kg	0.655	0.327	1
Cl6-BZ#128	6.48		ug/kg	0.655	0.327	1
Cl6-BZ#138	24.6		ug/kg	0.655	0.327	1
Cl6-BZ#153	19.4		ug/kg	0.655	0.327	1
Cl7-BZ#170	4.79		ug/kg	0.655	0.327	1
Cl7-BZ#180	6.24		ug/kg	0.655	0.327	1
Cl7-BZ#183	1.85		ug/kg	0.655	0.327	1
Cl7-BZ#184	ND		ug/kg	0.655	0.327	1
Cl7-BZ#187	4.30		ug/kg	0.655	0.327	1
Cl8-BZ#195	0.789		ug/kg	0.655	0.327	1
Cl9-BZ#206	1.62		ug/kg	0.655	0.327	1
Cl10-BZ#209	1.36		ug/kg	0.655	0.327	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	57		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-12
Client ID: HYDE PARK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 23:48
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.605	0.303	1
Cl3-BZ#18	0.745		ug/kg	0.605	0.303	1
Cl3-BZ#28	0.634		ug/kg	0.605	0.303	1
Cl4-BZ#44	0.353	J	ug/kg	0.605	0.303	1
Cl4-BZ#49	0.741		ug/kg	0.605	0.303	1
Cl4-BZ#52	0.591	J	ug/kg	0.605	0.303	1
Cl4-BZ#66	0.319	J	ug/kg	0.605	0.303	1
Cl5-BZ#87	ND		ug/kg	0.605	0.303	1
Cl5-BZ#101	0.433	J	ug/kg	0.605	0.303	1
Cl5-BZ#105	ND		ug/kg	0.605	0.303	1
Cl5-BZ#118	0.310	J	ug/kg	0.605	0.303	1
Cl6-BZ#128	ND		ug/kg	0.605	0.303	1
Cl6-BZ#138	0.354	J	ug/kg	0.605	0.303	1
Cl6-BZ#153	ND		ug/kg	0.605	0.303	1
Cl7-BZ#170	ND		ug/kg	0.605	0.303	1
Cl7-BZ#180	ND		ug/kg	0.605	0.303	1
Cl7-BZ#183	ND		ug/kg	0.605	0.303	1
Cl7-BZ#184	ND		ug/kg	0.605	0.303	1
Cl7-BZ#187	ND		ug/kg	0.605	0.303	1
Cl8-BZ#195	ND		ug/kg	0.605	0.303	1
Cl9-BZ#206	ND		ug/kg	0.605	0.303	1
Cl10-BZ#209	ND		ug/kg	0.605	0.303	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	59		50-125
BZ 198	61		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-13
Client ID: HYDE PARK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 00:19
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	6.00		ug/kg	0.620	0.310	1
Cl3-BZ#18	9.60		ug/kg	0.620	0.310	1
Cl3-BZ#28	14.2		ug/kg	0.620	0.310	1
Cl4-BZ#44	9.49		ug/kg	0.620	0.310	1
Cl4-BZ#49	12.5		ug/kg	0.620	0.310	1
Cl4-BZ#52	14.7		ug/kg	0.620	0.310	1
Cl4-BZ#66	10.4		ug/kg	0.620	0.310	1
Cl5-BZ#87	3.84		ug/kg	0.620	0.310	1
Cl5-BZ#101	14.8		ug/kg	0.620	0.310	1
Cl5-BZ#105	3.15		ug/kg	0.620	0.310	1
Cl5-BZ#118	9.19		ug/kg	0.620	0.310	1
Cl6-BZ#128	2.86		ug/kg	0.620	0.310	1
Cl6-BZ#138	10.1		ug/kg	0.620	0.310	1
Cl6-BZ#153	7.67		ug/kg	0.620	0.310	1
Cl7-BZ#170	1.95		ug/kg	0.620	0.310	1
Cl7-BZ#180	2.76		ug/kg	0.620	0.310	1
Cl7-BZ#183	0.809		ug/kg	0.620	0.310	1
Cl7-BZ#184	ND		ug/kg	0.620	0.310	1
Cl7-BZ#187	1.82		ug/kg	0.620	0.310	1
Cl8-BZ#195	ND		ug/kg	0.620	0.310	1
Cl9-BZ#206	3.71		ug/kg	0.620	0.310	1
Cl10-BZ#209	6.81		ug/kg	0.620	0.310	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		50-125
BZ 198	76		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-14
Client ID: HYDE PARK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 00:50
Analyst: PS
Percent Solids: 64%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.608	0.304	1
Cl3-BZ#18	ND		ug/kg	0.608	0.304	1
Cl3-BZ#28	ND		ug/kg	0.608	0.304	1
Cl4-BZ#44	ND		ug/kg	0.608	0.304	1
Cl4-BZ#49	ND		ug/kg	0.608	0.304	1
Cl4-BZ#52	ND		ug/kg	0.608	0.304	1
Cl4-BZ#66	ND		ug/kg	0.608	0.304	1
Cl5-BZ#87	ND		ug/kg	0.608	0.304	1
Cl5-BZ#101	ND		ug/kg	0.608	0.304	1
Cl5-BZ#105	ND		ug/kg	0.608	0.304	1
Cl5-BZ#118	ND		ug/kg	0.608	0.304	1
Cl6-BZ#128	ND		ug/kg	0.608	0.304	1
Cl6-BZ#138	ND		ug/kg	0.608	0.304	1
Cl6-BZ#153	ND		ug/kg	0.608	0.304	1
Cl7-BZ#170	ND		ug/kg	0.608	0.304	1
Cl7-BZ#180	ND		ug/kg	0.608	0.304	1
Cl7-BZ#183	ND		ug/kg	0.608	0.304	1
Cl7-BZ#184	ND		ug/kg	0.608	0.304	1
Cl7-BZ#187	ND		ug/kg	0.608	0.304	1
Cl8-BZ#195	ND		ug/kg	0.608	0.304	1
Cl9-BZ#206	ND		ug/kg	0.608	0.304	1
Cl10-BZ#209	ND		ug/kg	0.608	0.304	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	82		50-125
BZ 198	83		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-15
Client ID: HYDE PARK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 01:22
Analyst: PS
Percent Solids: 65%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	12.1		ug/kg	0.600	0.300	1
Cl3-BZ#18	42.4		ug/kg	0.600	0.300	1
Cl3-BZ#28	52.4		ug/kg	0.600	0.300	1
Cl4-BZ#44	20.0		ug/kg	0.600	0.300	1
Cl4-BZ#49	37.8		ug/kg	0.600	0.300	1
Cl4-BZ#52	47.3		ug/kg	0.600	0.300	1
Cl4-BZ#66	25.5		ug/kg	0.600	0.300	1
Cl5-BZ#87	6.02		ug/kg	0.600	0.300	1
Cl5-BZ#101	27.8		ug/kg	0.600	0.300	1
Cl5-BZ#105	5.43		ug/kg	0.600	0.300	1
Cl5-BZ#118	17.7		ug/kg	0.600	0.300	1
Cl6-BZ#128	4.90		ug/kg	0.600	0.300	1
Cl6-BZ#138	19.4		ug/kg	0.600	0.300	1
Cl6-BZ#153	15.1		ug/kg	0.600	0.300	1
Cl7-BZ#170	3.20		ug/kg	0.600	0.300	1
Cl7-BZ#180	4.99		ug/kg	0.600	0.300	1
Cl7-BZ#183	1.51		ug/kg	0.600	0.300	1
Cl7-BZ#184	ND		ug/kg	0.600	0.300	1
Cl7-BZ#187	3.21		ug/kg	0.600	0.300	1
Cl8-BZ#195	0.535	J	ug/kg	0.600	0.300	1
Cl9-BZ#206	3.79		ug/kg	0.600	0.300	1
Cl10-BZ#209	4.47		ug/kg	0.600	0.300	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	58		50-125
BZ 198	64		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-16
Client ID: HYDE PARK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 01:53
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.311	J	ug/kg	0.619	0.310	1
Cl3-BZ#18	0.494	J	ug/kg	0.619	0.310	1
Cl3-BZ#28	0.513	J	ug/kg	0.619	0.310	1
Cl4-BZ#44	ND		ug/kg	0.619	0.310	1
Cl4-BZ#49	0.541	J	ug/kg	0.619	0.310	1
Cl4-BZ#52	0.818		ug/kg	0.619	0.310	1
Cl4-BZ#66	ND		ug/kg	0.619	0.310	1
Cl5-BZ#87	ND		ug/kg	0.619	0.310	1
Cl5-BZ#101	0.471	J	ug/kg	0.619	0.310	1
Cl5-BZ#105	ND		ug/kg	0.619	0.310	1
Cl5-BZ#118	ND		ug/kg	0.619	0.310	1
Cl6-BZ#128	ND		ug/kg	0.619	0.310	1
Cl6-BZ#138	0.730		ug/kg	0.619	0.310	1
Cl6-BZ#153	ND		ug/kg	0.619	0.310	1
Cl7-BZ#170	ND		ug/kg	0.619	0.310	1
Cl7-BZ#180	ND		ug/kg	0.619	0.310	1
Cl7-BZ#183	ND		ug/kg	0.619	0.310	1
Cl7-BZ#184	ND		ug/kg	0.619	0.310	1
Cl7-BZ#187	ND		ug/kg	0.619	0.310	1
Cl8-BZ#195	ND		ug/kg	0.619	0.310	1
Cl9-BZ#206	ND		ug/kg	0.619	0.310	1
Cl10-BZ#209	ND		ug/kg	0.619	0.310	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	53		50-125
BZ 198	53		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-17
Client ID: HYDE PARK 4A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 02:24
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	61.4		ug/kg	0.642	0.321	1
Cl3-BZ#18	181		ug/kg	0.642	0.321	1
Cl3-BZ#28	193		ug/kg	0.642	0.321	1
Cl4-BZ#44	55.8		ug/kg	0.642	0.321	1
Cl4-BZ#49	137		ug/kg	0.642	0.321	1
Cl4-BZ#52	152		ug/kg	0.642	0.321	1
Cl4-BZ#66	71.2		ug/kg	0.642	0.321	1
Cl5-BZ#87	11.7		ug/kg	0.642	0.321	1
Cl5-BZ#101	55.0		ug/kg	0.642	0.321	1
Cl5-BZ#105	11.8		ug/kg	0.642	0.321	1
Cl5-BZ#118	36.0		ug/kg	0.642	0.321	1
Cl6-BZ#128	8.67		ug/kg	0.642	0.321	1
Cl6-BZ#138	33.0		ug/kg	0.642	0.321	1
Cl6-BZ#153	26.2		ug/kg	0.642	0.321	1
Cl7-BZ#170	6.82		ug/kg	0.642	0.321	1
Cl7-BZ#180	8.60		ug/kg	0.642	0.321	1
Cl7-BZ#183	2.26		ug/kg	0.642	0.321	1
Cl7-BZ#184	ND		ug/kg	0.642	0.321	1
Cl7-BZ#187	6.84		ug/kg	0.642	0.321	1
Cl8-BZ#195	1.21		ug/kg	0.642	0.321	1
Cl9-BZ#206	2.69		ug/kg	0.642	0.321	1
Cl10-BZ#209	1.71		ug/kg	0.642	0.321	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	69		50-125
BZ 198	67		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-18
Client ID: HYDE PARK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:15
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 02:55
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	1.14		ug/kg	0.598	0.299	1
Cl3-BZ#18	3.35		ug/kg	0.598	0.299	1
Cl3-BZ#28	3.10		ug/kg	0.598	0.299	1
Cl4-BZ#44	1.27		ug/kg	0.598	0.299	1
Cl4-BZ#49	2.79		ug/kg	0.598	0.299	1
Cl4-BZ#52	2.78		ug/kg	0.598	0.299	1
Cl4-BZ#66	1.21		ug/kg	0.598	0.299	1
Cl5-BZ#87	ND		ug/kg	0.598	0.299	1
Cl5-BZ#101	1.27		ug/kg	0.598	0.299	1
Cl5-BZ#105	ND		ug/kg	0.598	0.299	1
Cl5-BZ#118	1.08		ug/kg	0.598	0.299	1
Cl6-BZ#128	ND		ug/kg	0.598	0.299	1
Cl6-BZ#138	0.867		ug/kg	0.598	0.299	1
Cl6-BZ#153	0.610		ug/kg	0.598	0.299	1
Cl7-BZ#170	ND		ug/kg	0.598	0.299	1
Cl7-BZ#180	ND		ug/kg	0.598	0.299	1
Cl7-BZ#183	ND		ug/kg	0.598	0.299	1
Cl7-BZ#184	ND		ug/kg	0.598	0.299	1
Cl7-BZ#187	ND		ug/kg	0.598	0.299	1
Cl8-BZ#195	ND		ug/kg	0.598	0.299	1
Cl9-BZ#206	ND		ug/kg	0.598	0.299	1
Cl10-BZ#209	ND		ug/kg	0.598	0.299	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		50-125
BZ 198	71		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-19
Client ID: HYDE PARK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 03:27
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.652	0.326	1
Cl3-BZ#18	ND		ug/kg	0.652	0.326	1
Cl3-BZ#28	ND		ug/kg	0.652	0.326	1
Cl4-BZ#44	ND		ug/kg	0.652	0.326	1
Cl4-BZ#49	ND		ug/kg	0.652	0.326	1
Cl4-BZ#52	ND		ug/kg	0.652	0.326	1
Cl4-BZ#66	ND		ug/kg	0.652	0.326	1
Cl5-BZ#87	ND		ug/kg	0.652	0.326	1
Cl5-BZ#101	ND		ug/kg	0.652	0.326	1
Cl5-BZ#105	ND		ug/kg	0.652	0.326	1
Cl5-BZ#118	ND		ug/kg	0.652	0.326	1
Cl6-BZ#128	ND		ug/kg	0.652	0.326	1
Cl6-BZ#138	ND		ug/kg	0.652	0.326	1
Cl6-BZ#153	ND		ug/kg	0.652	0.326	1
Cl7-BZ#170	ND		ug/kg	0.652	0.326	1
Cl7-BZ#180	ND		ug/kg	0.652	0.326	1
Cl7-BZ#183	ND		ug/kg	0.652	0.326	1
Cl7-BZ#184	ND		ug/kg	0.652	0.326	1
Cl7-BZ#187	ND		ug/kg	0.652	0.326	1
Cl8-BZ#195	ND		ug/kg	0.652	0.326	1
Cl9-BZ#206	ND		ug/kg	0.652	0.326	1
Cl10-BZ#209	ND		ug/kg	0.652	0.326	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		50-125
BZ 198	73		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-20
Client ID: HYDE PARK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:50
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 11:29
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.612	0.306	1
Cl3-BZ#18	ND		ug/kg	0.612	0.306	1
Cl3-BZ#28	ND		ug/kg	0.612	0.306	1
Cl4-BZ#44	ND		ug/kg	0.612	0.306	1
Cl4-BZ#49	ND		ug/kg	0.612	0.306	1
Cl4-BZ#52	ND		ug/kg	0.612	0.306	1
Cl4-BZ#66	ND		ug/kg	0.612	0.306	1
Cl5-BZ#87	ND		ug/kg	0.612	0.306	1
Cl5-BZ#101	ND		ug/kg	0.612	0.306	1
Cl5-BZ#105	ND		ug/kg	0.612	0.306	1
Cl5-BZ#118	ND		ug/kg	0.612	0.306	1
Cl6-BZ#128	ND		ug/kg	0.612	0.306	1
Cl6-BZ#138	ND		ug/kg	0.612	0.306	1
Cl6-BZ#153	ND		ug/kg	0.612	0.306	1
Cl7-BZ#170	ND		ug/kg	0.612	0.306	1
Cl7-BZ#180	ND		ug/kg	0.612	0.306	1
Cl7-BZ#183	ND		ug/kg	0.612	0.306	1
Cl7-BZ#184	ND		ug/kg	0.612	0.306	1
Cl7-BZ#187	ND		ug/kg	0.612	0.306	1
Cl8-BZ#195	ND		ug/kg	0.612	0.306	1
Cl9-BZ#206	ND		ug/kg	0.612	0.306	1
Cl10-BZ#209	ND		ug/kg	0.612	0.306	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	75		50-125
BZ 198	68		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 16:31
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-20 Batch: WG1694522-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	66		50-125
BZ 198	107		50-125

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-20 Batch: WG1694522-2 WG1694522-3							
Cl2-BZ#8	82		77		40-140	6		30
Cl3-BZ#18	81		76		40-140	6		30
Cl3-BZ#28	87		82		40-140	6		30
Cl4-BZ#44	89		84		40-140	6		30
Cl4-BZ#49	87		79		40-140	10		30
Cl4-BZ#52	87		83		40-140	5		30
Cl4-BZ#66	89		83		40-140	7		30
Cl5-BZ#87	89		83		40-140	7		30
Cl5-BZ#101	88		82		40-140	7		30
Cl5-BZ#105	92		84		40-140	9		30
Cl5-BZ#118	88		82		40-140	7		30
Cl6-BZ#128	92		86		40-140	7		30
Cl6-BZ#138	90		83		40-140	8		30
Cl6-BZ#153	90		84		40-140	7		30
Cl7-BZ#170	94		88		40-140	7		30
Cl7-BZ#180	86		78		40-140	10		30
Cl7-BZ#183	87		80		40-140	8		30
Cl7-BZ#184	87		80		40-140	8		30
Cl7-BZ#187	89		83		40-140	7		30
Cl8-BZ#195	93		86		40-140	8		30
Cl9-BZ#206	92		85		40-140	8		30
Cl10-BZ#209	95		89		40-140	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-20 Batch: WG1694522-2 WG1694522-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	69		70		50-125
BZ 198	120		107		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-01
Client ID: POUGH 1A
Sample Location: KINGSTON, NY

Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 11:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	52.7		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-02
Client ID: POUGH 1B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-03
Client ID: POUGH 2A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 09:20
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.4		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-04
Client ID: POUGH 2B
Sample Location: KINGSTON, NY

Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 09:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.4		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-05
Client ID: POUGH 3A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.3		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-06
Client ID: POUGH 3B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-07
Client ID: POUGH 4A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 13:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	55.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-08
Client ID: POUGH 4B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	53.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-09
Client ID: POUGH 5A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 10:20
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-10
Client ID: POUGH 5B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	57.8		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-11
Client ID: HYDE PARK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-12
Client ID: HYDE PARK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-13
Client ID: HYDE PARK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.7		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-14
Client ID: HYDE PARK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.6		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-15
Client ID: HYDE PARK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	65.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-16
Client ID: HYDE PARK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-17
Client ID: HYDE PARK 4A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/25/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-18
Client ID: HYDE PARK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:15
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.2		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-19
Client ID: HYDE PARK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.8		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-20
Client ID: HYDE PARK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:50
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.9		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Lab Duplicate Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1694176-1 QC Sample: L2253003-03 Client ID: POUGH 2A						
Solids, Total	61.4	61.4	%	0		10
General Chemistry - Mansfield Lab Associated sample(s): 13-20 QC Batch ID: WG1695304-1 QC Sample: L2253636-10 Client ID: DUP Sample						
Solids, Total	91.1	90.0	%	1		10

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253003-01A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-02A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-03A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-04A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-05A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-06A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-07A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-08A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-09A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-10A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-11A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-12A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-13A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-14A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-15A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-16A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-17A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-18A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-19A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-20A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd In Lab: 9/27/22

ALPHA Job #: L2253603

Client Information
Client: Normandeau
Address: 400 Old Reading Pike Stowe, PA 19464
Phone: 717-617-7076
Fax:
Email: DNAZARIO@Normandeau.com
These samples have been previously analyzed by Alpha ☐

Project Information
Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001 Task 10
(Use Project name as Project #) ☐
Project Manager: Mike Mettler
ALPHAQuote #: 16943

Turn-Around Time
Standard ☒
Rush (only if pre approved) ☐
Due Date:
# of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 24711.001

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other

Other project specific requirements/comments:
PCB Cong (22) NOAA by 8270 (M)

Please specify Metals or TAL.

ANALYSIS
PCB Congeners 22
NOAA 8270 D-SIM (M)

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Bottles	Sample Specific Comments
2003-01	POUGH 1A	9/23/22	1130	SO1	NAF	1	
-02	1B		1145			1	
-03	2A		0920			1	
-04	2B		0930			1	
-05	3A		1230			1	
-06	3B		1245			1	
-07	4A		1330			1	
-08	4B		1345			1	
-09	5A		1020			1	
-10	5B		1035			1	

Container Type: GL
Preservative: —

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/26/22 1530		9/27/22 10:09
	9-27-22 14:54		9/27/22 1454
	9/27/22 1556		9/27/22 15:56

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr
TEL 508-898-9220
FAX 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL 508-822-9300
FAX 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd In Lab: 9/27/22

ALPHA Job #: L2253053

Client Information
Client: Normandeau
Address: 400 Old Reading Pike Stowe, PA 19464
Phone: 717-617-7076
Fax:
Email: DNazar@Normandeau

Project Information
Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001 Task 10
(Use Project name as Project #)
Project Manager: Mike Methler
ALPHAQuote #: 16943

Turn-Around Time
Standard: X
Rush (only if pre approved):
Due Date:
# of Days:

Deliverables
ASP-A / ASP-B / EQuIS (1 File) / EQuIS (4 File) / Other

Billing Information
X Same as Client Info
PO #: 24711.001

Regulatory Requirement
NY TOGS / NY Part 375 / AWQ Standards / NY CP-51 / NY Restricted Use / Other / NY Unrestricted Use / NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility: NJ / NY / Other

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:
PCB Congeners NOAA 22 8270D-SIM/680 (M)

Please specify Metals or TAL.

ANALYSIS
PCB Congeners NOAA 22 8270D-SIM 1680 (M)

Sample Filtration
Done / Lab to do
Preservation
Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Bottles	Sample Specific Comments
53053-01	Hyde Park 1A	9/25/22	1230	Soil	NAF	1	
-02	1B		1240			1	
-03	2A		1140			1	
-04	2B		1145			1	
-05	3A		0955			1	
-06	3B		1005			1	
-07	4A		0905			1	
-08	4B		0915			1	
-09	5A		1040			1	
-10	5B		1050			1	

Container Type: GL
Preservative: —

Preservative Code: A = None, B = HCl, C = HNO_3, D = H_2SO_4, E = NaOH, F = MeOH, G = $NaHSO_4$, H = $Na_2S_2O_3$, K/E = Zn Ac/NaOH, O = Other

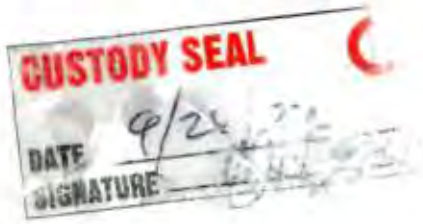
Container Code: P = Plastic, A = Amber Glass, V = Vial, G = Glass, B = Bacteria Cup, C = Cube, O = Other, E = Encore, D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/26/22 1530		9/27/22 1005
	9-27-22 14:59		9/27/22 1454
	9/27/22 1556		9/27/22 18:56

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)


CUSTODY SEAL
DATE 9/24
SIGNATURE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After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of the label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/22/27

Field Team Leader(s): MN
Field Crew: CB DJN
Station ID #: POUGHKEEPSIE 5
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MN
Arrival & Departure Times: 1217 – 1235
Weather: Clear Cloudy (Rain) Temp —
Wind Conditions (Speed/Direction): 10-15 NE

FIELD DATA

Water Depth: 58 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: POUGH 5 Coring Time: 1225 Penetration Depth: 9' ft. Core Recovery: 8' 10" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MN
File Name: POUGH 5
Lat / N: 41.7195 3464
Lon / E: -73.94278102
PDOP or SVs: 12

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MN

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24710.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/22/22

Field Team Leader(s): MM
Field Crew: DSN CCB
Station ID #: POUGHKEEPSIE 4
Photos: Y (N) File Name: –

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1240 – 1305
Weather: Clear Cloudy (Rain) Temp –
Wind Conditions (Speed/Direction): 15-20 NE

FIELD DATA

Water Depth: 54 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: POUGH 4 Coring Time: 1253 Penetration Depth: 9 ft. Core Recovery: 8'9" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: POUGH4
(Lat) / N: 41.721353579
Lon / E: 73.942275448
PDOP or SVs: 3

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other NAD84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

North

Feet of Tubing 10

Preparer's Initial: MM

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Crew: DDR CCB
Station ID #: POUGHKEEPSIE 1
Photos: Y (N) File Name: -

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1315 - 1330
Weather: Clear (Cloudy) Rain Temp -
Wind Conditions (Speed/Direction): 10-15 MPH

FIELD DATA

Water Depth: 53 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: POUG 1 Coring Time: 1323 Penetration Depth: 9' ft. Core Recovery: 9' ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: POUG 1
(Lat) / N: 41.723114585
(Lon) / E: 73.942442339
PDOP or (SVs): 10

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/22/22

Field Team Leader(s): MM
Field Crew: DON CCB
Station ID #: POUGHKEEPSIE 3
Photos: Y (N) File Name: -

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1341 - 1400
Weather: Clear (Cloudy) Rain Temp -
Wind Conditions (Speed/Direction): 10-15 NE

FIELD DATA

Water Depth: 52 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: POINT 3 Coring Time: 1349 Penetration Depth: 9 ft. Core Recovery: 9 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: DOL 3
(Lat) / N: 41.72493209
Lon / E: 73.94209541
PDOP or (SVs): 12

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other NAD84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 12

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/22/22

Field Team Leader(s): MM
Field Crew: DJM CCB
Station ID #: POUGHKEEPSIE 2
Photos: Y (N) File Name: –

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1409 – 1440
Weather: Clear (Cloudy) Rain Temp –
Wind Conditions (Speed/Direction): 10-15 NE

FIELD DATA

Water Depth: 11 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: POUL2 Coring Time: 1422 Penetration Depth: 10 ft. Core Recovery: 9'5" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: POU2
Lat / N: 41.726733607
Lon / E: -73.941750982
PDOP or SVs: 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	POUGH 2	SHEET 1 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : ~~5~~ 7
START : 0909 END : 1000 LOGGER : DTW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity Cohesive Silty clay no odor no sheen	POUGH 2A VOA taken at 2 feet at 0920 2 x 8 oz. jars 1 VOA kit 1 x 16oz. jars
4					↓	POUGH 2B VOA taken at 6.5 ft at 0930 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jars
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	POUGH 5	SHEET 2 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 5.8 ft
START : 1004 END : 1100 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity Cohesive, silty clay no odor, no sheen	POUGH 5A VOA taken at 2 ft. at 1020 2 x 8 oz jars 1 VOA kit 1 x 16 oz jar
4					↓	POUGH 5B VOA taken at 6.5 ft at 1035 2 x 8 oz. jars 1 VOA kit 1 x 16 oz jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	POUGH 1	SHEET 3 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : ~~5~~ 3 ft
START : 1117 END : 1205 LOGGER : NJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity Cohesive, Silty clay no odor, no sheen (small rocks, gravel in top 7 inches)	POUGH 1A VOA taken at 2 ft. at ~~1030~~ 1130 2 x 8 oz. jars 1 VOA kit 1 x 16 oz jar
4						POUGH 1B VOA taken at 6.5 ft at ~~1045~~ 1145 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/23/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Pough 3	SHEET 4 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 52 ft.
START : 1215 END : 1250 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	POUGH 3A Voa taken at 2 feet at 1230 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
4					↓	POUGH 3B Voa taken at 6.5 feet at 1245 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/23/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	POUGH 4	SHEET 5 OF 5

Soil Boring Log

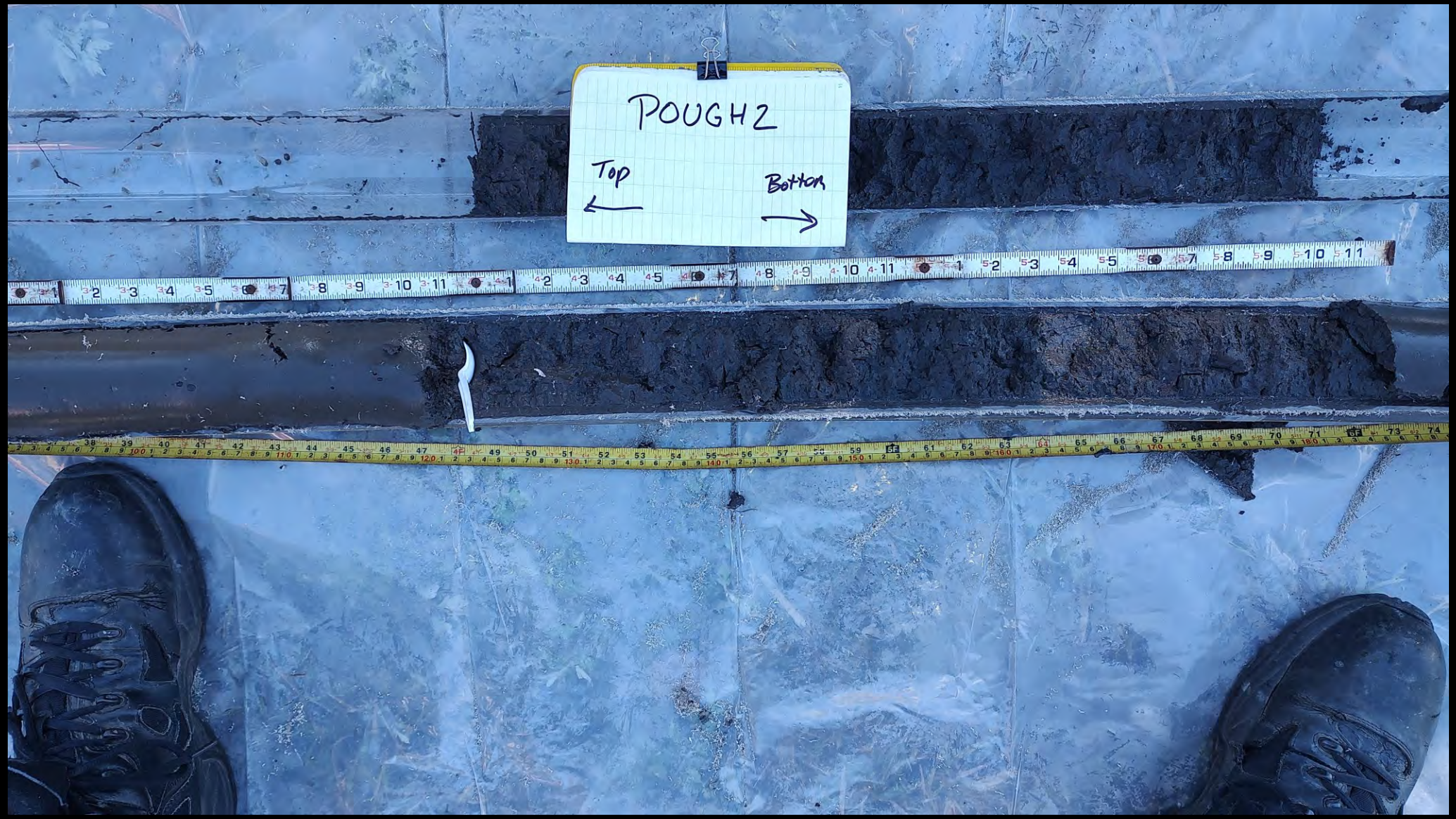
PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 5ft
START : 1255 END : 1330 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	POUGH 4A voa taken at 2 ft. at 1330 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
4					↓	POUGH 4B voa taken at 6.5ft at 1345 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

Sediment Core Photos

CHPE Hudson River
Location – Poughkeepsie
Project No. 24711.001, Task 10


POUGH2
Top
Bottom


POUGH2
Top
Bottom


POUGH2
Top
Bottom


POUGH 5
Top
Bottom


POUGH 5
Top
Bottom


POUGH 5
Top
Bottom


POUGH 1
Top
Bottom


POUGH 1
Top
Bottom

POUGH 1
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POUGH3
Top
Bottom


POUGH3
Top
Bottom


POUGH3
Top
Bottom

POUGH 4
Top
Bottom


POUGH 4
Top
Bottom


POUGH 4
Top
Bottom

Attachment C

Hyde Park Sediment Cores

Laboratory Results

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project 2022-2022-12-003 CHPE Hudson 7
Workorder 3265649
Report ID 206665 on 11/11/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 27, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3265649001	Hyde Park 1A	Solid	09/25/2022 12:30	09/27/2022 09:04	CBC	Collected By Client
3265649002	Hyde Park 1B	Solid	09/25/2022 12:40	09/27/2022 09:04	CBC	Collected By Client
3265649003	Hyde Park 2A	Solid	09/25/2022 11:40	09/27/2022 09:04	CBC	Collected By Client
3265649004	Hyde Park 2B	Solid	09/25/2022 11:45	09/27/2022 09:04	CBC	Collected By Client
3265649005	Hyde Park 3A	Solid	09/25/2022 09:55	09/27/2022 09:04	CBC	Collected By Client
3265649006	Hyde Park 3B	Solid	09/25/2022 10:05	09/27/2022 09:04	CBC	Collected By Client
3265649007	Hyde Park 4A	Solid	09/25/2022 09:05	09/27/2022 09:04	CBC	Collected By Client
3265649008	Hyde Park 4B	Solid	09/25/2022 09:15	09/27/2022 09:04	CBC	Collected By Client
3265649009	Hyde Park 5A	Solid	09/25/2022 10:40	09/27/2022 09:04	CBC	Collected By Client
3265649010	Hyde Park 5B	Solid	09/25/2022 10:50	09/27/2022 09:04	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3265649001	Hyde Park 1A	**S1**	This sample was collected in a soil jar for the volatile analysis. The sample was prepared by Method 5035 after the 48-hour holding time.
		S2	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649002	Hyde Park 1B	**S3**	This sample was collected in a soil jar for the volatile analysis. The sample was prepared by Method 5035 after the 48-hour holding time.
		S4	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649003	Hyde Park 2A	**S5**	This sample was collected in a soil jar for the volatile analysis. The sample was prepared by Method 5035 after the 48-hour holding time.
		S6	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649004	Hyde Park 2B	**S7**	This sample was collected in a soil jar for the volatile analysis. The sample was prepared by Method 5035 after the 48-hour holding time.
		S8	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649005	Hyde Park 3A	**S9**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649006	Hyde Park 3B	**S10**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649007	Hyde Park 4A	**S11**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649008	Hyde Park 4B	**S12**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649009	Hyde Park 5A	**S13**	This sample was collected in a soil jar for the volatile analysis. The sample was prepared by Method 5035 after the 48-hour holding time.
		S14	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265649010	Hyde Park 5B	**S15**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 11/11/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 60% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 35% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 76% in the bracketing CCV.
5	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 34% in the bracketing CCV.
6	The surrogate 2-Fluorobiphenyl for method SW846 8270D was outside of control limits. The % Recovery was reported as 34.9 and the control limits were 40 to 110. This result was reported at a dilution of 1.
7	The surrogate Terphenyl-d14 for method SW846 8270D was outside of control limits. The % Recovery was reported as 42 and the control limits were 45 to 126. This result was reported at a dilution of 1.
8	The QC sample type DUP for method S2540G-11 was outside the control limits for the analyte Moisture. The RPD was reported as 14.5 and the upper control limit is 10.
9	The QC sample type DUP for method S2540G-11 was outside the control limits for the analyte Total Solids. The RPD was reported as 11.1 and the upper control limit is 5.
10	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte Ethylbenzene. The % Recovery was reported as 61.9 and the control limits were 73 to 133.
11	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte Toluene. The % Recovery was reported as 72.4 and the control limits were 73 to 129.
12	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte Total Xylenes. The % Recovery was reported as 59.9 and the control limits were 73 to 130.
13	The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 35.1 and the control limits were 38 to 112. This result was reported at a dilution of 1.

Detected Results Summary

Client Sample ID	**Hyde Park 1A**	Collected	**09/25/2022 12:30**
Lab Sample ID	**3265649001**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	13.4	mg/kg	3.6	1.2	SW846 6010D	#
Cadmium, Total	1.5	mg/kg	0.89	0.30	SW846 6010D	#
Copper, Total	64.5	mg/kg	3.6	1.2	SW846 6010D	#
Lead, Total	83.6	mg/kg	3.6	1.2	SW846 6010D	#
Mercury, Total	0.68	mg/kg	0.080	0.026	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	62.7J	ug/kg	88.3	30.0	SW846 8270D	#
Anthracene	79.0J	ug/kg	88.3	30.0	SW846 8270D	#
Benzo(a)anthracene	187	ug/kg	88.3	30.0	SW846 8270D	#
Benzo(a)pyrene	271	ug/kg	88.3	30.0	SW846 8270D	#
Benzo(b)fluoranthene	157	ug/kg	88.3	30.0	SW846 8270D	#
Benzo(g,h,i)perylene	148	ug/kg	88.3	30.0	SW846 8270D	#
Benzo(k)fluoranthene	173	ug/kg	88.3	30.0	SW846 8270D	#
Chrysene	223	ug/kg	88.3	30.0	SW846 8270D	#
Dibenzo(a,h)anthracene	39.2J	ug/kg	88.3	30.0	SW846 8270D	#
Fluoranthene	205	ug/kg	88.3	30.0	SW846 8270D	#
Fluorene	36.4J	ug/kg	88.3	30.0	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	161	ug/kg	88.3	30.0	SW846 8270D	#
Naphthalene	55.4J	ug/kg	88.3	30.0	SW846 8270D	#
Phenanthrene	165	ug/kg	88.3	30.0	SW846 8270D	#
Pyrene	290	ug/kg	88.3	30.0	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	44.5	%	0.1	0.01	S2540G-11	#
Total Solids	55.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID **Hyde Park 1B**
Lab Sample ID **3265649002**

Collected **09/25/2022 12:40**
Lab Receipt **09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	23.0	mg/kg	3.2	1.1	SW846 6010D	#
Cadmium, Total	0.53J	mg/kg	0.80	0.27	SW846 6010D	#
Copper, Total	33.4	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	52.7	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.49	mg/kg	0.069	0.022	SW846 7471B	#
SEMIVOLATILES						
Anthracene	51.3J	ug/kg	68.5	23.3	SW846 8270D	#
Benzo(a)anthracene	121	ug/kg	68.5	23.3	SW846 8270D	#
Benzo(a)pyrene	153	ug/kg	68.5	23.3	SW846 8270D	#
Benzo(b)fluoranthene	89.9	ug/kg	68.5	23.3	SW846 8270D	#
Benzo(g,h,i)perylene	104	ug/kg	68.5	23.3	SW846 8270D	#
Benzo(k)fluoranthene	80.5	ug/kg	68.5	23.3	SW846 8270D	#
Chrysene	129	ug/kg	68.5	23.3	SW846 8270D	#
Fluoranthene	133	ug/kg	68.5	23.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	87.3	ug/kg	68.5	23.3	SW846 8270D	#
Naphthalene	25.6J	ug/kg	68.5	23.3	SW846 8270D	#
Phenanthrene	102	ug/kg	68.5	23.3	SW846 8270D	#
Pyrene	176	ug/kg	68.5	23.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	38.2	%	0.1	0.01	S2540G-11	#
Total Solids	61.8	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 2A**	Collected	**09/25/2022 11:40**
Lab Sample ID	**3265649003**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	10.3	mg/kg	3.2	1.1	SW846 6010D	#
Cadmium, Total	1.5	mg/kg	0.81	0.27	SW846 6010D	#
Copper, Total	52.9	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	65.2	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.57	mg/kg	0.072	0.023	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	45.1J	ug/kg	83.5	28.4	SW846 8270D	#
Anthracene	42.1J	ug/kg	83.5	28.4	SW846 8270D	#
Benzo(a)anthracene	119	ug/kg	83.5	28.4	SW846 8270D	#
Benzo(a)pyrene	158	ug/kg	83.5	28.4	SW846 8270D	#
Benzo(b)fluoranthene	110	ug/kg	83.5	28.4	SW846 8270D	#
Benzo(g,h,i)perylene	104	ug/kg	83.5	28.4	SW846 8270D	#
Benzo(k)fluoranthene	110	ug/kg	83.5	28.4	SW846 8270D	#
Chrysene	140	ug/kg	83.5	28.4	SW846 8270D	#
Fluoranthene	153	ug/kg	83.5	28.4	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	116	ug/kg	83.5	28.4	SW846 8270D	#
Naphthalene	36.1J	ug/kg	83.5	28.4	SW846 8270D	#
Phenanthrene	108	ug/kg	83.5	28.4	SW846 8270D	#
Pyrene	179	ug/kg	83.5	28.4	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	42.4	%	0.1	0.01	S2540G-11	#
Total Solids	57.6	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 2B**	Collected	**09/25/2022 11:45**
Lab Sample ID	**3265649004**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	14.3	mg/kg	2.8	0.95	SW846 6010D	#
Cadmium, Total	0.41J	mg/kg	0.71	0.24	SW846 6010D	#
Copper, Total	34.0	mg/kg	2.8	0.95	SW846 6010D	#
Lead, Total	55.0	mg/kg	2.8	0.95	SW846 6010D	#
Mercury, Total	0.71	mg/kg	0.073	0.023	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	32.3J	ug/kg	74.4	25.3	SW846 8270D	#
Anthracene	42.4J	ug/kg	74.4	25.3	SW846 8270D	#
Benzo(a)anthracene	125	ug/kg	74.4	25.3	SW846 8270D	#
Benzo(a)pyrene	192	ug/kg	74.4	25.3	SW846 8270D	#
Benzo(b)fluoranthene	89.7	ug/kg	74.4	25.3	SW846 8270D	#
Benzo(g,h,i)perylene	106	ug/kg	74.4	25.3	SW846 8270D	#
Benzo(k)fluoranthene	102	ug/kg	74.4	25.3	SW846 8270D	#
Chrysene	146	ug/kg	74.4	25.3	SW846 8270D	#
Dibenzo(a,h)anthracene	25.9J	ug/kg	74.4	25.3	SW846 8270D	#
Fluoranthene	132	ug/kg	74.4	25.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	104	ug/kg	74.4	25.3	SW846 8270D	#
Naphthalene	29.6J	ug/kg	74.4	25.3	SW846 8270D	#
Phenanthrene	92.3	ug/kg	74.4	25.3	SW846 8270D	#
Pyrene	168	ug/kg	74.4	25.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	37.8	%	0.1	0.01	S2540G-11	#
Total Solids	62.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 3A**	Collected	**09/25/2022 09:55**
Lab Sample ID	**3265649005**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	12.4	mg/kg	3.6	1.2	SW846 6010D	#
Cadmium, Total	2.1	mg/kg	0.91	0.30	SW846 6010D	#
Copper, Total	66.0	mg/kg	3.6	1.2	SW846 6010D	#
Lead, Total	102	mg/kg	3.6	1.2	SW846 6010D	#
Mercury, Total	1.1	mg/kg	0.083	0.027	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	85.4J	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(a)pyrene	125	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(b)fluoranthene	80.0J	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(g,h,i)perylene	86.8J	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(k)fluoranthene	75.3J	ug/kg	89.9	30.6	SW846 8270D	#
Chrysene	98.4	ug/kg	89.9	30.6	SW846 8270D	#
Dibenzo(a,h)anthracene	36.7J	ug/kg	89.9	30.6	SW846 8270D	#
Fluoranthene	90.5	ug/kg	89.9	30.6	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	78.6J	ug/kg	89.9	30.6	SW846 8270D	#
Phenanthrene	58.7J	ug/kg	89.9	30.6	SW846 8270D	#
Pyrene	112	ug/kg	89.9	30.6	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	46.5	%	0.1	0.01	S2540G-11	#
Total Solids	53.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 3B**	Collected	**09/25/2022 10:05**
Lab Sample ID	**3265649006**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	23.7	mg/kg	3.2	1.1	SW846 6010D	#
Cadmium, Total	0.57J	mg/kg	0.80	0.27	SW846 6010D	#
Copper, Total	36.0	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	55.7	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.50	mg/kg	0.071	0.023	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	42.2J	ug/kg	80.5	27.4	SW846 8270D	#
Anthracene	78.3J	ug/kg	80.5	27.4	SW846 8270D	#
Benzo(a)anthracene	188	ug/kg	80.5	27.4	SW846 8270D	#
Benzo(a)pyrene	270	ug/kg	80.5	27.4	SW846 8270D	#
Benzo(b)fluoranthene	153	ug/kg	80.5	27.4	SW846 8270D	#
Benzo(g,h,i)perylene	144	ug/kg	80.5	27.4	SW846 8270D	#
Benzo(k)fluoranthene	140	ug/kg	80.5	27.4	SW846 8270D	#
Chrysene	207	ug/kg	80.5	27.4	SW846 8270D	#
Dibenzo(a,h)anthracene	34.3J	ug/kg	80.5	27.4	SW846 8270D	#
Fluoranthene	208	ug/kg	80.5	27.4	SW846 8270D	#
Fluorene	35.1J	ug/kg	80.5	27.4	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	138	ug/kg	80.5	27.4	SW846 8270D	#
Naphthalene	44.3J	ug/kg	80.5	27.4	SW846 8270D	#
Phenanthrene	168	ug/kg	80.5	27.4	SW846 8270D	#
Pyrene	272	ug/kg	80.5	27.4	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.1	%	0.1	0.01	S2540G-11	#
Total Solids	60.9	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 4A**	Collected	**09/25/2022 09:05**
Lab Sample ID	**3265649007**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	11.1	mg/kg	3.5	1.2	SW846 6010D	#
Cadmium, Total	3.5	mg/kg	0.87	0.29	SW846 6010D	#
Copper, Total	71.0	mg/kg	3.5	1.2	SW846 6010D	#
Lead, Total	102	mg/kg	3.5	1.2	SW846 6010D	#
Mercury, Total	0.66	mg/kg	0.078	0.025	SW846 7471B	#
PESTICIDES						
4,4'-DDE	14.4J	ug/kg	15.3	4.9	SW846 8081B	#
SEMIVOLATILES						
Acenaphthylene	39.5J	ug/kg	90.3	30.7	SW846 8270D	#
Anthracene	70.4J	ug/kg	90.3	30.7	SW846 8270D	#
Benzo(a)anthracene	157	ug/kg	90.3	30.7	SW846 8270D	#
Benzo(a)pyrene	196	ug/kg	90.3	30.7	SW846 8270D	#
Benzo(b)fluoranthene	140	ug/kg	90.3	30.7	SW846 8270D	#
Benzo(g,h,i)perylene	129	ug/kg	90.3	30.7	SW846 8270D	#
Benzo(k)fluoranthene	137	ug/kg	90.3	30.7	SW846 8270D	#
Chrysene	188	ug/kg	90.3	30.7	SW846 8270D	#
Dibenzo(a,h)anthracene	42.7J	ug/kg	90.3	30.7	SW846 8270D	#
Fluoranthene	202	ug/kg	90.3	30.7	SW846 8270D	#
Fluorene	35.9J	ug/kg	90.3	30.7	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	126	ug/kg	90.3	30.7	SW846 8270D	#
Naphthalene	34.8J	ug/kg	90.3	30.7	SW846 8270D	#
Phenanthrene	152	ug/kg	90.3	30.7	SW846 8270D	#
Pyrene	250	ug/kg	90.3	30.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	46.8	%	0.1	0.01	S2540G-11	#
Total Solids	53.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 4B**	Collected	**09/25/2022 09:15**
Lab Sample ID	**3265649008**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	24.7	mg/kg	3.1	1.0	SW846 6010D	#
Cadmium, Total	0.64J	mg/kg	0.79	0.26	SW846 6010D	#
Copper, Total	46.5	mg/kg	3.1	1.0	SW846 6010D	#
Lead, Total	67.9	mg/kg	3.1	1.0	SW846 6010D	#
Mercury, Total	0.53	mg/kg	0.072	0.023	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	40.3J	ug/kg	78.2	26.6	SW846 8270D	#
Anthracene	53.8J	ug/kg	78.2	26.6	SW846 8270D	#
Benzo(a)anthracene	151	ug/kg	78.2	26.6	SW846 8270D	#
Benzo(a)pyrene	226	ug/kg	78.2	26.6	SW846 8270D	#
Benzo(b)fluoranthene	129	ug/kg	78.2	26.6	SW846 8270D	#
Benzo(g,h,i)perylene	126	ug/kg	78.2	26.6	SW846 8270D	#
Benzo(k)fluoranthene	114	ug/kg	78.2	26.6	SW846 8270D	#
Chrysene	177	ug/kg	78.2	26.6	SW846 8270D	#
Dibenzo(a,h)anthracene	30.7J	ug/kg	78.2	26.6	SW846 8270D	#
Fluoranthene	144	ug/kg	78.2	26.6	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	133	ug/kg	78.2	26.6	SW846 8270D	#
Naphthalene	28.8J	ug/kg	78.2	26.6	SW846 8270D	#
Phenanthrene	107	ug/kg	78.2	26.6	SW846 8270D	#
Pyrene	191	ug/kg	78.2	26.6	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.8	%	0.1	0.01	S2540G-11	#
Total Solids	59.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 5A**	Collected	**09/25/2022 10:40**
Lab Sample ID	**3265649009**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	19.2	mg/kg	3.3	1.1	SW846 6010D	#
Cadmium, Total	0.65J	mg/kg	0.84	0.28	SW846 6010D	#
Copper, Total	46.7	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	67.8	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.75	mg/kg	0.083	0.026	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	39.3J	ug/kg	79.1	26.9	SW846 8270D	#
Anthracene	65.3J	ug/kg	79.1	26.9	SW846 8270D	#
Benzo(a)anthracene	170	ug/kg	79.1	26.9	SW846 8270D	#
Benzo(a)pyrene	241	ug/kg	79.1	26.9	SW846 8270D	#
Benzo(b)fluoranthene	129	ug/kg	79.1	26.9	SW846 8270D	#
Benzo(g,h,i)perylene	130	ug/kg	79.1	26.9	SW846 8270D	#
Benzo(k)fluoranthene	132	ug/kg	79.1	26.9	SW846 8270D	#
Chrysene	200	ug/kg	79.1	26.9	SW846 8270D	#
Dibenzo(a,h)anthracene	33.8J	ug/kg	79.1	26.9	SW846 8270D	#
Fluoranthene	184	ug/kg	79.1	26.9	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	137	ug/kg	79.1	26.9	SW846 8270D	#
Naphthalene	31.4J	ug/kg	79.1	26.9	SW846 8270D	#
Phenanthrene	129	ug/kg	79.1	26.9	SW846 8270D	#
Pyrene	219	ug/kg	79.1	26.9	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	43.6	%	0.1	0.01	S2540G-11	#
Total Solids	56.4	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	**Hyde Park 5B**	Collected	**09/25/2022 10:50**
Lab Sample ID	**3265649010**	Lab Receipt	**09/27/2022 09:04**

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	49.6	mg/kg	3.1	1.0	SW846 6010D	#
Cadmium, Total	0.59J	mg/kg	0.78	0.26	SW846 6010D	#
Copper, Total	41.6	mg/kg	3.1	1.0	SW846 6010D	#
Lead, Total	63.4	mg/kg	3.1	1.0	SW846 6010D	#
Mercury, Total	0.52	mg/kg	0.076	0.024	SW846 7471B	#
SEMIVOLATILES						
Anthracene	37.3J	ug/kg	79.8	27.1	SW846 8270D	#
Benzo(a)anthracene	75.8J	ug/kg	79.8	27.1	SW846 8270D	#
Benzo(a)pyrene	99.7	ug/kg	79.8	27.1	SW846 8270D	#
Benzo(b)fluoranthene	62.8J	ug/kg	79.8	27.1	SW846 8270D	#
Benzo(g,h,i)perylene	59.7J	ug/kg	79.8	27.1	SW846 8270D	#
Benzo(k)fluoranthene	48.7J	ug/kg	79.8	27.1	SW846 8270D	#
Chrysene	86.1	ug/kg	79.8	27.1	SW846 8270D	#
Fluoranthene	91.5	ug/kg	79.8	27.1	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	59.4J	ug/kg	79.8	27.1	SW846 8270D	#
Phenanthrene	74.3J	ug/kg	79.8	27.1	SW846 8270D	#
Pyrene	118	ug/kg	79.8	27.1	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.9	%	0.1	0.01	S2540G-11	#
Total Solids	59.1	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	Hyde Park 1A	Collected	09/25/2022 12:30
Lab Sample ID	3265649001	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	13.4	S1,S2	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 16:57	A1S	A1
Cadmium, Total	1.5	S1,S2	mg/kg	0.89	0.30	SW846 6010D	1	10/18/2022 16:57	A1S	A1
Copper, Total	64.5	S1,S2	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 16:57	A1S	A1
Lead, Total	83.6	S1,S2	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 16:57	A1S	A1
Mercury, Total	0.68	S1,S2	mg/kg	0.080	0.026	SW846 7471B	1	10/10/2022 14:43	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1,S2	ug/kg	15.1	9.8	SW846 8081B	5	10/06/2022 00:23	KJH	A
4,4'-DDE	ND	ND,3,S1,S2	ug/kg	15.1	4.9	SW846 8081B	5	10/06/2022 00:23	KJH	A
4,4'-DDT	ND	ND,4,S1,S2	ug/kg	15.1	4.4	SW846 8081B	5	10/06/2022 00:23	KJH	A
Chlordane	ND	ND,S1,S2	ug/kg	311	52.4	SW846 8081B	5	10/06/2022 00:23	KJH	A
Dieldrin	ND	ND,5,S1,S2	ug/kg	15.1	5.9	SW846 8081B	5	10/06/2022 00:23	KJH	A
Mirex	ND	ND,S1,S2	ug/kg	15.1	4.7	SW846 8081B	5	10/06/2022 00:23	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	46.5%	30 – 135	10/06/2022 00:23	
Tetrachloro-m-xylene	877-09-8	45.3%	30 – 111	10/06/2022 00:23	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Acenaphthylene	62.7J	J,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Anthracene	79.0J	J,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Benzo(a)anthracene	187	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Benzo(a)pyrene	271	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Benzo(b)fluoranthene	157	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Benzo(g,h,i)perylene	148	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Benzo(k)fluoranthene	173	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Chrysene	223	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Dibenzo(a,h)anthracene	39.2J	J,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Fluoranthene	205	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Fluorene	36.4J	J,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Indeno(1,2,3-cd)pyrene	161	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Naphthalene	55.4J	J,S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Phenanthrene	165	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A
Pyrene	290	S1,S2	ug/kg	88.3	30.0	SW846 8270D	1	09/28/2022 09:11	GEC	A

Results

Client Sample ID	**Hyde Park 1A**	Collected	**09/25/2022 12:30**
Lab Sample ID	**3265649001**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	53.8%	19 – 132	09/28/2022 09:11	
2-Fluorobiphenyl	321-60-8	54.1%	40 – 110	09/28/2022 09:11	
2-Fluorophenol	367-12-4	56.5%	26 – 116	09/28/2022 09:11	
Nitrobenzene-d5	4165-60-0	54.8%	38 – 112	09/28/2022 09:11	
Phenol-d5	4165-62-2	58.9%	35 – 111	09/28/2022 09:11	
Terphenyl-d14	98904-43-9	63.4%	45 – 126	09/28/2022 09:11	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1,S2	ug/L			EPA 1613B	1	11/11/2022 15:33	SUB	C

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1,S2	ug/kg	3.2	0.80	SW846 8260C	1	09/30/2022 05:52	VLM	A4
Ethylbenzene	ND	ND,S1,S2	ug/kg	3.2	1.1	SW846 8260C	1	09/30/2022 05:52	VLM	A4
Toluene	ND	ND,S1,S2	ug/kg	3.2	1.1	SW846 8260C	1	09/30/2022 05:52	VLM	A4
Total Xylenes	ND	ND,S1,S2	ug/kg	9.7	2.3	SW846 8260C	1	09/30/2022 05:52	VLM	A4

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.2%	56 – 124	09/30/2022 05:52	
4-Bromofluorobenzene	460-00-4	98.7%	51 – 128	09/30/2022 05:52	
Dibromofluoromethane	1868-53-7	99.6%	62 – 123	09/30/2022 05:52	
Toluene-d8	2037-26-5	94%	59 – 131	09/30/2022 05:52	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	44.5	S1,S2	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	55.5	S1,S2	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 1B	Collected	09/25/2022 12:40
Lab Sample ID	3265649002	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	23.0	S3,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:58	A1S	A1
Cadmium, Total	0.53J	J,S3,S4	mg/kg	0.80	0.27	SW846 6010D	1	10/18/2022 16:58	A1S	A1
Copper, Total	33.4	S3,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:58	A1S	A1
Lead, Total	52.7	S3,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:58	A1S	A1
Mercury, Total	0.49	S3,S4	mg/kg	0.069	0.022	SW846 7471B	1	10/10/2022 14:44	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3,S4	ug/kg	13.2	8.6	SW846 8081B	5	10/06/2022 00:33	KJH	A
4,4'-DDE	ND	ND,3,S3,S4	ug/kg	13.2	4.3	SW846 8081B	5	10/06/2022 00:33	KJH	A
4,4'-DDT	ND	ND,4,S3,S4	ug/kg	13.2	3.8	SW846 8081B	5	10/06/2022 00:33	KJH	A
Chlordane	ND	ND,S3,S4	ug/kg	272	45.9	SW846 8081B	5	10/06/2022 00:33	KJH	A
Dieldrin	ND	ND,5,S3,S4	ug/kg	13.2	5.1	SW846 8081B	5	10/06/2022 00:33	KJH	A
Mirex	ND	ND,S3,S4	ug/kg	13.2	4.1	SW846 8081B	5	10/06/2022 00:33	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	48.4%	30 – 135	10/06/2022 00:33	
Tetrachloro-m-xylene	877-09-8	52.6%	30 – 111	10/06/2022 00:33	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Acenaphthylene	ND	ND,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Anthracene	51.3J	J,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Benzo(a)anthracene	121	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Benzo(a)pyrene	153	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Benzo(b)fluoranthene	89.9	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Benzo(g,h,i)perylene	104	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Benzo(k)fluoranthene	80.5	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Chrysene	129	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Dibenzo(a,h)anthracene	ND	ND,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Fluoranthene	133	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Fluorene	ND	ND,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Indeno(1,2,3-cd)pyrene	87.3	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Naphthalene	25.6J	J,S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Phenanthrene	102	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A
Pyrene	176	S3,S4	ug/kg	68.5	23.3	SW846 8270D	1	09/28/2022 09:36	GEC	A

Results

Client Sample ID	**Hyde Park 1B**	Collected	**09/25/2022 12:40**
Lab Sample ID	**3265649002**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	54.8%	19 – 132	09/28/2022 09:36	
2-Fluorobiphenyl	321-60-8	56.3%	40 – 110	09/28/2022 09:36	
2-Fluorophenol	367-12-4	60.9%	26 – 116	09/28/2022 09:36	
Nitrobenzene-d5	4165-60-0	57.3%	38 – 112	09/28/2022 09:36	
Phenol-d5	4165-62-2	61.4%	35 – 111	09/28/2022 09:36	
Terphenyl-d14	98904-43-9	66.1%	45 – 126	09/28/2022 09:36	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3,S4	ug/L			EPA 1613B	1	11/11/2022 15:34	SUB	C

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3,S4	ug/kg	3.1	0.77	SW846 8260C	1	09/30/2022 06:16	VLM	A3
Ethylbenzene	ND	ND,S3,S4	ug/kg	3.1	1.0	SW846 8260C	1	09/30/2022 06:16	VLM	A3
Toluene	ND	ND,S3,S4	ug/kg	3.1	1.0	SW846 8260C	1	09/30/2022 06:16	VLM	A3
Total Xylenes	ND	ND,S3,S4	ug/kg	9.3	2.2	SW846 8260C	1	09/30/2022 06:16	VLM	A3

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	88.9%	56 – 124	09/30/2022 06:16	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	09/30/2022 06:16	
Dibromofluoromethane	1868-53-7	100%	62 – 123	09/30/2022 06:16	
Toluene-d8	2037-26-5	94.3%	59 – 131	09/30/2022 06:16	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	38.2	S3,S4	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	61.8	S3,S4	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 2A	Collected	09/25/2022 11:40
Lab Sample ID	3265649003	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	10.3	S5,S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:59	A1S	A1
Cadmium, Total	1.5	S5,S6	mg/kg	0.81	0.27	SW846 6010D	1	10/18/2022 16:59	A1S	A1
Copper, Total	52.9	S5,S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:59	A1S	A1
Lead, Total	65.2	S5,S6	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 16:59	A1S	A1
Mercury, Total	0.57	S5,S6	mg/kg	0.072	0.023	SW846 7471B	1	10/10/2022 14:48	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S5,S6	ug/kg	14.3	9.2	SW846 8081B	5	10/05/2022 23:30	KJH	A
4,4'-DDE	ND	ND,3,S5,S6	ug/kg	14.3	4.6	SW846 8081B	5	10/05/2022 23:30	KJH	A
4,4'-DDT	ND	ND,4,S5,S6	ug/kg	14.3	4.1	SW846 8081B	5	10/05/2022 23:30	KJH	A
Chlordane	ND	ND,S5,S6	ug/kg	294	49.6	SW846 8081B	5	10/05/2022 23:30	KJH	A
Dieldrin	ND	ND,5,S5,S6	ug/kg	14.3	5.5	SW846 8081B	5	10/05/2022 23:30	KJH	A
Mirex	ND	ND,S5,S6	ug/kg	14.3	4.5	SW846 8081B	5	10/05/2022 23:30	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	46.3%	30 – 135	10/05/2022 23:30	
Tetrachloro-m-xylene	877-09-8	47.7%	30 – 111	10/05/2022 23:30	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Acenaphthylene	45.1J	J,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Anthracene	42.1J	J,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Benzo(a)anthracene	119	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Benzo(a)pyrene	158	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Benzo(b)fluoranthene	110	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Benzo(g,h,i)perylene	104	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Benzo(k)fluoranthene	110	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Chrysene	140	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Dibenzo(a,h)anthracene	ND	ND,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Fluoranthene	153	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Fluorene	ND	ND,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Indeno(1,2,3-cd)pyrene	116	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Naphthalene	36.1J	J,S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Phenanthrene	108	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A
Pyrene	179	S5,S6	ug/kg	83.5	28.4	SW846 8270D	1	09/28/2022 10:00	GEC	A

Results

Client Sample ID	Hyde Park 2A	Collected	09/25/2022 11:40
Lab Sample ID	3265649003	Lab Receipt	09/27/2022 09:04

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	57.8%	19 – 132	09/28/2022 10:00	
2-Fluorobiphenyl	321-60-8	55.1%	40 – 110	09/28/2022 10:00	
2-Fluorophenol	367-12-4	61.6%	26 – 116	09/28/2022 10:00	
Nitrobenzene-d5	4165-60-0	58.8%	38 – 112	09/28/2022 10:00	
Phenol-d5	4165-62-2	63.5%	35 – 111	09/28/2022 10:00	
Terphenyl-d14	98904-43-9	64.6%	45 – 126	09/28/2022 10:00	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S5,S6	ug/L			EPA 1613B	1	11/11/2022 15:35	SUB	C

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S5,S6	ug/kg	3.0	0.75	SW846 8260C	1	09/30/2022 06:41	VLM	A3
Ethylbenzene	ND	ND,S5,S6	ug/kg	3.0	1.0	SW846 8260C	1	09/30/2022 06:41	VLM	A3
Toluene	ND	ND,S5,S6	ug/kg	3.0	1.0	SW846 8260C	1	09/30/2022 06:41	VLM	A3
Total Xylenes	ND	ND,S5,S6	ug/kg	9.0	2.1	SW846 8260C	1	09/30/2022 06:41	VLM	A3

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.2%	56 – 124	09/30/2022 06:41	
4-Bromofluorobenzene	460-00-4	97.9%	51 – 128	09/30/2022 06:41	
Dibromofluoromethane	1868-53-7	103%	62 – 123	09/30/2022 06:41	
Toluene-d8	2037-26-5	90.6%	59 – 131	09/30/2022 06:41	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	42.4	S5,S6	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	57.6	S5,S6	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 2B	Collected	09/25/2022 11:45
Lab Sample ID	3265649004	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	14.3	S7,S8	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 17:02	A1S	A1
Cadmium, Total	0.41J	J,S7,S8	mg/kg	0.71	0.24	SW846 6010D	1	10/18/2022 17:02	A1S	A1
Copper, Total	34.0	S7,S8	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 17:02	A1S	A1
Lead, Total	55.0	S7,S8	mg/kg	2.8	0.95	SW846 6010D	1	10/18/2022 17:02	A1S	A1
Mercury, Total	0.71	S7,S8	mg/kg	0.073	0.023	SW846 7471B	1	10/10/2022 14:49	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S7,S8	ug/kg	13.5	8.7	SW846 8081B	5	10/06/2022 00:12	KJH	A
4,4'-DDE	ND	ND,3,S7,S8	ug/kg	13.5	4.4	SW846 8081B	5	10/06/2022 00:12	KJH	A
4,4'-DDT	ND	ND,4,S7,S8	ug/kg	13.5	3.9	SW846 8081B	5	10/06/2022 00:12	KJH	A
Chlordane	ND	ND,S7,S8	ug/kg	278	46.8	SW846 8081B	5	10/06/2022 00:12	KJH	A
Dieldrin	ND	ND,5,S7,S8	ug/kg	13.5	5.2	SW846 8081B	5	10/06/2022 00:12	KJH	A
Mirex	ND	ND,S7,S8	ug/kg	13.5	4.2	SW846 8081B	5	10/06/2022 00:12	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	46.3%	30 – 135	10/06/2022 00:12	
Tetrachloro-m-xylene	877-09-8	42.9%	30 – 111	10/06/2022 00:12	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Acenaphthylene	32.3J	J,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Anthracene	42.4J	J,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Benzo(a)anthracene	125	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Benzo(a)pyrene	192	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Benzo(b)fluoranthene	89.7	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Benzo(g,h,i)perylene	106	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Benzo(k)fluoranthene	102	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Chrysene	146	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Dibenzo(a,h)anthracene	25.9J	J,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Fluoranthene	132	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Fluorene	ND	ND,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Indeno(1,2,3-cd)pyrene	104	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Naphthalene	29.6J	J,S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Phenanthrene	92.3	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A
Pyrene	168	S7,S8	ug/kg	74.4	25.3	SW846 8270D	1	09/28/2022 10:25	GEC	A

Results

Client Sample ID	**Hyde Park 2B**	Collected	**09/25/2022 11:45**
Lab Sample ID	**3265649004**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	55.9%	19 – 132	09/28/2022 10:25	
2-Fluorobiphenyl	321-60-8	53.1%	40 – 110	09/28/2022 10:25	
2-Fluorophenol	367-12-4	65%	26 – 116	09/28/2022 10:25	
Nitrobenzene-d5	4165-60-0	60.5%	38 – 112	09/28/2022 10:25	
Phenol-d5	4165-62-2	65.9%	35 – 111	09/28/2022 10:25	
Terphenyl-d14	98904-43-9	57.3%	45 – 126	09/28/2022 10:25	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S7,S8	ug/L			EPA 1613B	1	11/11/2022 15:35	SUB	C

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S7,S8	ug/kg	2.9	0.72	SW846 8260C	1	09/30/2022 07:05	VLM	A3
Ethylbenzene	ND	ND,S7,S8	ug/kg	2.9	0.98	SW846 8260C	1	09/30/2022 07:05	VLM	A3
Toluene	ND	ND,S7,S8	ug/kg	2.9	0.97	SW846 8260C	1	09/30/2022 07:05	VLM	A3
Total Xylenes	ND	ND,S7,S8	ug/kg	8.7	2.0	SW846 8260C	1	09/30/2022 07:05	VLM	A3

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.3%	56 – 124	09/30/2022 07:05	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	09/30/2022 07:05	
Dibromofluoromethane	1868-53-7	103%	62 – 123	09/30/2022 07:05	
Toluene-d8	2037-26-5	97%	59 – 131	09/30/2022 07:05	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	37.8	S7,S8	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	62.2	S7,S8	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 3A	Collected	09/25/2022 09:55
Lab Sample ID	3265649005	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	12.4	S9	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 17:03	A1S	A1
Cadmium, Total	2.1	S9	mg/kg	0.91	0.30	SW846 6010D	1	10/18/2022 17:03	A1S	A1
Copper, Total	66.0	S9	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 17:03	A1S	A1
Lead, Total	102	S9	mg/kg	3.6	1.2	SW846 6010D	1	10/18/2022 17:03	A1S	A1
Mercury, Total	1.1	S9	mg/kg	0.083	0.027	SW846 7471B	1	10/10/2022 14:50	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S9	ug/kg	15.3	9.9	SW846 8081B	5	10/05/2022 23:40	KJH	A
4,4'-DDE	ND	ND,3,S9	ug/kg	15.3	4.9	SW846 8081B	5	10/05/2022 23:40	KJH	A
4,4'-DDT	ND	ND,4,S9	ug/kg	15.3	4.4	SW846 8081B	5	10/05/2022 23:40	KJH	A
Chlordane	ND	ND,S9	ug/kg	315	53.1	SW846 8081B	5	10/05/2022 23:40	KJH	A
Dieldrin	ND	ND,5,S9	ug/kg	15.3	5.9	SW846 8081B	5	10/05/2022 23:40	KJH	A
Mirex	ND	ND,S9	ug/kg	15.3	4.8	SW846 8081B	5	10/05/2022 23:40	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	55.1%	30 – 135	10/05/2022 23:40	
Tetrachloro-m-xylene	877-09-8	54.1%	30 – 111	10/05/2022 23:40	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Acenaphthylene	ND	ND,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Anthracene	ND	ND,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Benzo(a)anthracene	85.4J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Benzo(a)pyrene	125	S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Benzo(b)fluoranthene	80.0J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Benzo(g,h,i)perylene	86.8J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Benzo(k)fluoranthene	75.3J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Chrysene	98.4	S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Dibenzo(a,h)anthracene	36.7J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Fluoranthene	90.5	S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Fluorene	ND	ND,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Indeno(1,2,3-cd)pyrene	78.6J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Naphthalene	ND	ND,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Phenanthrene	58.7J	J,S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A
Pyrene	112	S9	ug/kg	89.9	30.6	SW846 8270D	1	09/28/2022 10:49	GEC	A

Results

Client Sample ID	**Hyde Park 3A**	Collected	**09/25/2022 09:55**
Lab Sample ID	**3265649005**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	42.5%	19 – 132	09/28/2022 10:49	
2-Fluorobiphenyl	321-60-8	34.9*%	40 – 110	09/28/2022 10:49	6
2-Fluorophenol	367-12-4	58.7%	26 – 116	09/28/2022 10:49	
Nitrobenzene-d5	4165-60-0	52.5%	38 – 112	09/28/2022 10:49	
Phenol-d5	4165-62-2	60.4%	35 – 111	09/28/2022 10:49	
Terphenyl-d14	98904-43-9	42*%	45 – 126	09/28/2022 10:49	7

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S9	ug/L			EPA 1613B	1	11/11/2022 15:35	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S9	ug/kg	3.7	0.93	SW846 8260C	1	09/30/2022 01:00	VLM	C
Ethylbenzene	ND	ND,S9	ug/kg	3.7	1.3	SW846 8260C	1	09/30/2022 01:00	VLM	C
Toluene	ND	ND,S9	ug/kg	3.7	1.2	SW846 8260C	1	09/30/2022 01:00	VLM	C
Total Xylenes	ND	ND,S9	ug/kg	11.2	2.6	SW846 8260C	1	09/30/2022 01:00	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	90.9%	56 – 124	09/30/2022 01:00	
4-Bromofluorobenzene	460-00-4	107%	51 – 128	09/30/2022 01:00	
Dibromofluoromethane	1868-53-7	99.7%	62 – 123	09/30/2022 01:00	
Toluene-d8	2037-26-5	98.1%	59 – 131	09/30/2022 01:00	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	46.5	8,S9	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	53.5	9,S9	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 3B	Collected	09/25/2022 10:05
Lab Sample ID	3265649006	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	23.7	S10	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 17:04	A1S	A1
Cadmium, Total	0.57J	J,S10	mg/kg	0.80	0.27	SW846 6010D	1	10/18/2022 17:04	A1S	A1
Copper, Total	36.0	S10	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 17:04	A1S	A1
Lead, Total	55.7	S10	mg/kg	3.2	1.1	SW846 6010D	1	10/18/2022 17:04	A1S	A1
Mercury, Total	0.50	S10	mg/kg	0.071	0.023	SW846 7471B	1	10/10/2022 14:51	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S10	ug/kg	13.4	8.7	SW846 8081B	5	10/05/2022 23:51	KJH	A
4,4'-DDE	ND	ND,3,S10	ug/kg	13.4	4.3	SW846 8081B	5	10/05/2022 23:51	KJH	A
4,4'-DDT	ND	ND,4,S10	ug/kg	13.4	3.9	SW846 8081B	5	10/05/2022 23:51	KJH	A
Chlordane	ND	ND,S10	ug/kg	276	46.6	SW846 8081B	5	10/05/2022 23:51	KJH	A
Dieldrin	ND	ND,5,S10	ug/kg	13.4	5.2	SW846 8081B	5	10/05/2022 23:51	KJH	A
Mirex	ND	ND,S10	ug/kg	13.4	4.2	SW846 8081B	5	10/05/2022 23:51	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	49%	30 – 135	10/05/2022 23:51	
Tetrachloro-m-xylene	877-09-8	53.9%	30 – 111	10/05/2022 23:51	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Acenaphthylene	42.2J	J,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Anthracene	78.3J	J,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Benzo(a)anthracene	188	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Benzo(a)pyrene	270	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Benzo(b)fluoranthene	153	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Benzo(g,h,i)perylene	144	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Benzo(k)fluoranthene	140	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Chrysene	207	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Dibenzo(a,h)anthracene	34.3J	J,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Fluoranthene	208	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Fluorene	35.1J	J,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Indeno(1,2,3-cd)pyrene	138	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Naphthalene	44.3J	J,S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Phenanthrene	168	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A
Pyrene	272	S10	ug/kg	80.5	27.4	SW846 8270D	1	09/28/2022 11:14	GEC	A

Results

Client Sample ID	**Hyde Park 3B**	Collected	**09/25/2022 10:05**
Lab Sample ID	**3265649006**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	53.2%	19 – 132	09/28/2022 11:14	
2-Fluorobiphenyl	321-60-8	54.5%	40 – 110	09/28/2022 11:14	
2-Fluorophenol	367-12-4	58.8%	26 – 116	09/28/2022 11:14	
Nitrobenzene-d5	4165-60-0	55.2%	38 – 112	09/28/2022 11:14	
Phenol-d5	4165-62-2	59.7%	35 – 111	09/28/2022 11:14	
Terphenyl-d14	98904-43-9	62.3%	45 – 126	09/28/2022 11:14	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	S10	ug/L			EPA 1613B	1	11/11/2022 15:36	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S10	ug/kg	3.3	0.83	SW846 8260C	1	09/30/2022 01:24	VLM	D
Ethylbenzene	ND	ND,S10	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 01:24	VLM	D
Toluene	ND	ND,S10	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 01:24	VLM	D
Total Xylenes	ND	ND,S10	ug/kg	9.9	2.3	SW846 8260C	1	09/30/2022 01:24	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.5%	56 – 124	09/30/2022 01:24	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	09/30/2022 01:24	
Dibromofluoromethane	1868-53-7	99.6%	62 – 123	09/30/2022 01:24	
Toluene-d8	2037-26-5	95.2%	59 – 131	09/30/2022 01:24	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.1	S10	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	60.9	S10	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	**Hyde Park 4A**	Collected	**09/25/2022 09:05**
Lab Sample ID	**3265649007**	Lab Receipt	**09/27/2022 09:04**

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	11.1	S11	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 17:05	A1S	A1
Cadmium, Total	3.5	S11	mg/kg	0.87	0.29	SW846 6010D	1	10/18/2022 17:05	A1S	A1
Copper, Total	71.0	S11	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 17:05	A1S	A1
Lead, Total	102	S11	mg/kg	3.5	1.2	SW846 6010D	1	10/18/2022 17:05	A1S	A1
Mercury, Total	0.66	S11	mg/kg	0.078	0.025	SW846 7471B	1	10/10/2022 14:55	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S11	ug/kg	15.3	9.9	SW846 8081B	5	10/06/2022 00:02	KJH	A
4,4'-DDE	14.4J	J,3,S11	ug/kg	15.3	4.9	SW846 8081B	5	10/06/2022 00:02	KJH	A
4,4'-DDT	ND	ND,4,S11	ug/kg	15.3	4.4	SW846 8081B	5	10/06/2022 00:02	KJH	A
Chlordane	ND	ND,S11	ug/kg	314	53.0	SW846 8081B	5	10/06/2022 00:02	KJH	A
Dieldrin	ND	ND,5,S11	ug/kg	15.3	5.9	SW846 8081B	5	10/06/2022 00:02	KJH	A
Mirex	ND	ND,S11	ug/kg	15.3	4.8	SW846 8081B	5	10/06/2022 00:02	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	52.1%	30 – 135	10/06/2022 00:02	
Tetrachloro-m-xylene	877-09-8	53.4%	30 – 111	10/06/2022 00:02	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Acenaphthylene	39.5J	J,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Anthracene	70.4J	J,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Benzo(a)anthracene	157	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Benzo(a)pyrene	196	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Benzo(b)fluoranthene	140	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Benzo(g,h,i)perylene	129	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Benzo(k)fluoranthene	137	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Chrysene	188	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Dibenzo(a,h)anthracene	42.7J	J,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Fluoranthene	202	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Fluorene	35.9J	J,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Indeno(1,2,3-cd)pyrene	126	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Naphthalene	34.8J	J,S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Phenanthrene	152	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A
Pyrene	250	S11	ug/kg	90.3	30.7	SW846 8270D	1	09/28/2022 11:39	GEC	A

Results

Client Sample ID	**Hyde Park 4A**	Collected	**09/25/2022 09:05**
Lab Sample ID	**3265649007**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	50.4%	19 – 132	09/28/2022 11:39	
2-Fluorobiphenyl	321-60-8	42.9%	40 – 110	09/28/2022 11:39	
2-Fluorophenol	367-12-4	33.8%	26 – 116	09/28/2022 11:39	
Nitrobenzene-d5	4165-60-0	35.1*%	38 – 112	09/28/2022 11:39	13
Phenol-d5	4165-62-2	37.5%	35 – 111	09/28/2022 11:39	
Terphenyl-d14	98904-43-9	59.2%	45 – 126	09/28/2022 11:39	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S11	ug/L			EPA 1613B	1	11/11/2022 15:36	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S11	ug/kg	2.6	0.65	SW846 8260C	1	09/30/2022 01:48	VLM	C
Ethylbenzene	ND	ND,10,S 11	ug/kg	2.6	0.88	SW846 8260C	1	09/30/2022 01:48	VLM	C
Toluene	ND	ND,11,S 11	ug/kg	2.6	0.87	SW846 8260C	1	09/30/2022 01:48	VLM	C
Total Xylenes	ND	ND,12,S 11	ug/kg	7.8	1.8	SW846 8260C	1	09/30/2022 01:48	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	88.3%	56 – 124	09/30/2022 01:48	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	09/30/2022 01:48	
Dibromofluoromethane	1868-53-7	98.4%	62 – 123	09/30/2022 01:48	
Toluene-d8	2037-26-5	93.1%	59 – 131	09/30/2022 01:48	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	46.8	S11	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	53.2	S11	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 4B	Collected	09/25/2022 09:15
Lab Sample ID	3265649008	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	24.7	S12	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:06	A1S	A1
Cadmium, Total	0.64J	J,S12	mg/kg	0.79	0.26	SW846 6010D	1	10/19/2022 14:06	A1S	A1
Copper, Total	46.5	S12	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:06	A1S	A1
Lead, Total	67.9	S12	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:06	A1S	A1
Mercury, Total	0.53	S12	mg/kg	0.072	0.023	SW846 7471B	1	10/10/2022 14:56	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S12	ug/kg	14.1	9.1	SW846 8081B	5	10/06/2022 00:44	KJH	A
4,4'-DDE	ND	ND,3,S12	ug/kg	14.1	4.6	SW846 8081B	5	10/06/2022 00:44	KJH	A
4,4'-DDT	ND	ND,4,S12	ug/kg	14.1	4.1	SW846 8081B	5	10/06/2022 00:44	KJH	A
Chlordane	ND	ND,S12	ug/kg	290	48.9	SW846 8081B	5	10/06/2022 00:44	KJH	A
Dieldrin	ND	ND,5,S12	ug/kg	14.1	5.5	SW846 8081B	5	10/06/2022 00:44	KJH	A
Mirex	ND	ND,S12	ug/kg	14.1	4.4	SW846 8081B	5	10/06/2022 00:44	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	41.3%	30 – 135	10/06/2022 00:44	
Tetrachloro-m-xylene	877-09-8	41.7%	30 – 111	10/06/2022 00:44	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Acenaphthylene	40.3J	J,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Anthracene	53.8J	J,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Benzo(a)anthracene	151	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Benzo(a)pyrene	226	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Benzo(b)fluoranthene	129	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Benzo(g,h,i)perylene	126	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Benzo(k)fluoranthene	114	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Chrysene	177	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Dibenzo(a,h)anthracene	30.7J	J,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Fluoranthene	144	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Fluorene	ND	ND,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Indeno(1,2,3-cd)pyrene	133	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Naphthalene	28.8J	J,S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Phenanthrene	107	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A
Pyrene	191	S12	ug/kg	78.2	26.6	SW846 8270D	1	09/28/2022 12:03	GEC	A

Results

Client Sample ID	**Hyde Park 4B**	Collected	**09/25/2022 09:15**
Lab Sample ID	**3265649008**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	57.4%	19 – 132	09/28/2022 12:03	
2-Fluorobiphenyl	321-60-8	55.5%	40 – 110	09/28/2022 12:03	
2-Fluorophenol	367-12-4	56.6%	26 – 116	09/28/2022 12:03	
Nitrobenzene-d5	4165-60-0	55.1%	38 – 112	09/28/2022 12:03	
Phenol-d5	4165-62-2	58.6%	35 – 111	09/28/2022 12:03	
Terphenyl-d14	98904-43-9	62.4%	45 – 126	09/28/2022 12:03	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S12	ug/L			EPA 1613B	1	11/11/2022 15:36	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S12	ug/kg	3.3	0.83	SW846 8260C	1	09/30/2022 02:13	VLM	C
Ethylbenzene	ND	ND,S12	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 02:13	VLM	C
Toluene	ND	ND,S12	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 02:13	VLM	C
Total Xylenes	ND	ND,S12	ug/kg	9.9	2.3	SW846 8260C	1	09/30/2022 02:13	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.7%	56 – 124	09/30/2022 02:13	
4-Bromofluorobenzene	460-00-4	105%	51 – 128	09/30/2022 02:13	
Dibromofluoromethane	1868-53-7	99.1%	62 – 123	09/30/2022 02:13	
Toluene-d8	2037-26-5	93.3%	59 – 131	09/30/2022 02:13	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.8	S12	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	59.2	S12	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	Hyde Park 5A	Collected	09/25/2022 10:40
Lab Sample ID	3265649009	Lab Receipt	09/27/2022 09:04

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	19.2	S13,S14	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:09	A1S	A1
Cadmium, Total	0.65J	J,S13,S14	mg/kg	0.84	0.28	SW846 6010D	1	10/19/2022 14:09	A1S	A1
Copper, Total	46.7	S13,S14	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:09	A1S	A1
Lead, Total	67.8	S13,S14	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:09	A1S	A1
Mercury, Total	0.75	S13,S14	mg/kg	0.083	0.026	SW846 7471B	1	10/10/2022 14:57	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S13,S14	ug/kg	14.6	9.4	SW846 8081B	5	10/06/2022 00:54	KJH	A
4,4'-DDE	ND	ND,3,S13,S14	ug/kg	14.6	4.7	SW846 8081B	5	10/06/2022 00:54	KJH	A
4,4'-DDT	ND	ND,4,S13,S14	ug/kg	14.6	4.2	SW846 8081B	5	10/06/2022 00:54	KJH	A
Chlordane	ND	ND,S13,S14	ug/kg	300	50.6	SW846 8081B	5	10/06/2022 00:54	KJH	A
Dieldrin	ND	ND,5,S13,S14	ug/kg	14.6	5.7	SW846 8081B	5	10/06/2022 00:54	KJH	A
Mirex	ND	ND,S13,S14	ug/kg	14.6	4.5	SW846 8081B	5	10/06/2022 00:54	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	51%	30 – 135	10/06/2022 00:54	
Tetrachloro-m-xylene	877-09-8	50.7%	30 – 111	10/06/2022 00:54	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Acenaphthylene	39.3J	J,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Anthracene	65.3J	J,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Benzo(a)anthracene	170	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Benzo(a)pyrene	241	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Benzo(b)fluoranthene	129	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Benzo(g,h,i)perylene	130	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Benzo(k)fluoranthene	132	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Chrysene	200	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Dibenzo(a,h)anthracene	33.8J	J,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Fluoranthene	184	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Fluorene	ND	ND,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Indeno(1,2,3-cd)pyrene	137	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Naphthalene	31.4J	J,S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Phenanthrene	129	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A
Pyrene	219	S13,S14	ug/kg	79.1	26.9	SW846 8270D	1	09/28/2022 12:28	GEC	A

Results

Client Sample ID	**Hyde Park 5A**	Collected	**09/25/2022 10:40**
Lab Sample ID	**3265649009**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	58.9%	19 – 132	09/28/2022 12:28	
2-Fluorobiphenyl	321-60-8	57.1%	40 – 110	09/28/2022 12:28	
2-Fluorophenol	367-12-4	56.3%	26 – 116	09/28/2022 12:28	
Nitrobenzene-d5	4165-60-0	55.7%	38 – 112	09/28/2022 12:28	
Phenol-d5	4165-62-2	57.8%	35 – 111	09/28/2022 12:28	
Terphenyl-d14	98904-43-9	64.3%	45 – 126	09/28/2022 12:28	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S13,S14	ug/L			EPA 1613B	1	11/11/2022 15:37	SUB	C

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S13,S14	ug/kg	3.3	0.84	SW846 8260C	1	09/30/2022 07:29	VLM	A2
Ethylbenzene	ND	ND,S13,S14	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 07:29	VLM	A2
Toluene	ND	ND,S13,S14	ug/kg	3.3	1.1	SW846 8260C	1	09/30/2022 07:29	VLM	A2
Total Xylenes	ND	ND,S13,S14	ug/kg	10.0	2.3	SW846 8260C	1	09/30/2022 07:29	VLM	A2

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.7%	56 – 124	09/30/2022 07:29	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	09/30/2022 07:29	
Dibromofluoromethane	1868-53-7	101%	62 – 123	09/30/2022 07:29	
Toluene-d8	2037-26-5	94.5%	59 – 131	09/30/2022 07:29	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	43.6	S13,S14	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	56.4	S13,S14	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Results

Client Sample ID	**Hyde Park 5B**	Collected	**09/25/2022 10:50**
Lab Sample ID	**3265649010**	Lab Receipt	**09/27/2022 09:04**

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	49.6	S15	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:10	A1S	A1
Cadmium, Total	0.59J	J,S15	mg/kg	0.78	0.26	SW846 6010D	1	10/19/2022 14:10	A1S	A1
Copper, Total	41.6	S15	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:10	A1S	A1
Lead, Total	63.4	S15	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:10	A1S	A1
Mercury, Total	0.52	S15	mg/kg	0.076	0.024	SW846 7471B	1	10/10/2022 14:59	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S15	ug/kg	13.9	9.0	SW846 8081B	5	10/06/2022 01:05	KJH	A
4,4'-DDE	ND	ND,3,S15	ug/kg	13.9	4.5	SW846 8081B	5	10/06/2022 01:05	KJH	A
4,4'-DDT	ND	ND,4,S15	ug/kg	13.9	4.0	SW846 8081B	5	10/06/2022 01:05	KJH	A
Chlordane	ND	ND,S15	ug/kg	286	48.3	SW846 8081B	5	10/06/2022 01:05	KJH	A
Dieldrin	ND	ND,5,S15	ug/kg	13.9	5.4	SW846 8081B	5	10/06/2022 01:05	KJH	A
Mirex	ND	ND,S15	ug/kg	13.9	4.3	SW846 8081B	5	10/06/2022 01:05	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	49.2%	30 – 135	10/06/2022 01:05	
Tetrachloro-m-xylene	877-09-8	48.7%	30 – 111	10/06/2022 01:05	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Acenaphthylene	ND	ND,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Anthracene	37.3J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Benzo(a)anthracene	75.8J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Benzo(a)pyrene	99.7	S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Benzo(b)fluoranthene	62.8J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Benzo(g,h,i)perylene	59.7J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Benzo(k)fluoranthene	48.7J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Chrysene	86.1	S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Dibenzo(a,h)anthracene	ND	ND,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Fluoranthene	91.5	S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Fluorene	ND	ND,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Indeno(1,2,3-cd)pyrene	59.4J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Naphthalene	ND	ND,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Phenanthrene	74.3J	J,S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A
Pyrene	118	S15	ug/kg	79.8	27.1	SW846 8270D	1	09/28/2022 12:53	GEC	A

Results

Client Sample ID	**Hyde Park 5B**	Collected	**09/25/2022 10:50**
Lab Sample ID	**3265649010**	Lab Receipt	**09/27/2022 09:04**

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	42.9%	19 – 132	09/28/2022 12:53	
2-Fluorobiphenyl	321-60-8	41%	40 – 110	09/28/2022 12:53	
2-Fluorophenol	367-12-4	42.8%	26 – 116	09/28/2022 12:53	
Nitrobenzene-d5	4165-60-0	40.3%	38 – 112	09/28/2022 12:53	
Phenol-d5	4165-62-2	44.1%	35 – 111	09/28/2022 12:53	
Terphenyl-d14	98904-43-9	48%	45 – 126	09/28/2022 12:53	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S15	ug/L			EPA 1613B	1	11/11/2022 15:37	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S15	ug/kg	3.4	0.86	SW846 8260C	1	09/30/2022 02:37	VLM	C
Ethylbenzene	ND	ND,S15	ug/kg	3.4	1.2	SW846 8260C	1	09/30/2022 02:37	VLM	C
Toluene	ND	ND,S15	ug/kg	3.4	1.1	SW846 8260C	1	09/30/2022 02:37	VLM	C
Total Xylenes	ND	ND,S15	ug/kg	10.3	2.4	SW846 8260C	1	09/30/2022 02:37	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	90.1%	56 – 124	09/30/2022 02:37	
4-Bromofluorobenzene	460-00-4	102%	51 – 128	09/30/2022 02:37	
Dibromofluoromethane	1868-53-7	99.5%	62 – 123	09/30/2022 02:37	
Toluene-d8	2037-26-5	93.7%	59 – 131	09/30/2022 02:37	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.9	S15	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A
Total Solids	59.1	S15	%	0.1	0.01	S2540G-11	1	09/28/2022 12:25	NXL	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265649001	Hyde Park 1A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649002	Hyde Park 1B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649003	Hyde Park 2A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649004	Hyde Park 2B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649005	Hyde Park 3A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649006	Hyde Park 3B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649007	Hyde Park 4A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265649008	Hyde Park 4B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649009	Hyde Park 5A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265649010	Hyde Park 5B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3265649001	Hyde Park 1A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/24/2022 09:17	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649002	Hyde Park 1B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/24/2022 09:18	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649003	Hyde Park 2A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/24/2022 09:21	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649004	Hyde Park 2B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/24/2022 09:23	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649005	Hyde Park 3A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/25/2022 09:55	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649006	Hyde Park 3B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/25/2022 10:05	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649007	Hyde Park 4A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	884489	09/29/2022 01:32	ANN	SW846 6010D	891358
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/25/2022 09:05	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649008	Hyde Park 4B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/25/2022 09:15	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3265649009	Hyde Park 5A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/24/2022 09:26	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587
3265649010	Hyde Park 5B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	889077	10/10/2022 10:05	WDA	SW846 7471B	889249
		SW846 3546	884461	09/27/2022 18:30	RXS	SW846 8081B	885096
		SW846 3546	884458	09/27/2022 18:20	J1H	SW846 8270D	884648
		SW846 5035A	885252	09/25/2022 10:50	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884587

11/11/2022 4:18 PM

40 of 121

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3265649
Logged By: KSB
PM: SSL
ALS Quote #:
of

Client Name: Normandeau
Address: 400 old Reading Pike
Stowe, PA 19464

Contact: DON NAZARIO
Phone#: 717-617-7076
Project Name/#: CHPE Hudson River
Bill To: Normandeau
Purchase Order #: 24711.001
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X]-Y DNAZARIO@Normandeau.com

	Container Type	VOA	GL	GL		GL				
	Container Size	40ml	8oz	16oz		8oz				
	Preservative	MeOH				-				

Unless otherwise Indicated, preservation indicates field filtration on applicable methods

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs, % moist	PAHs, Metals, Pest	Dioxins	VOCs, % moist				
	Enter Number of Containers Per Sample or Field Results Below.													
1	Hyde Park 1A	9/25/22	1230		G	SW		1	1		1			
2	1B		1240					1	1		1			
3	2A		1140					1	1		1			
4	2B		1145					1	1		1			
5	3A		0955				4	1	1					
6	3B		1005				4	1	1					
7	4A		0905				4	1	1					
8	4B		0915				4	1	1					
9	5A		1040					1	1		1			
10	5B		1050				4	1	1					

Circle Sample Collector: ALS Tech / Client ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/26/22	1530	1	DN/Normandeau	2	FedEx
9/27/22	9:04	3	FedEx	4	Brooke Peters
		5		6	
		7		8	
		9		10	

Temp Taken By: BLP Therm ID: 570 WO Temp (°C) 0°

Receipt Info completed by:

WV Containers 0-6°C	Y	N	NA
Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA only: Headspace Present	Y	N	NA
VOA only: Trip Blank	Y	N	NA

Deviations? NO YES
If YES, list below:

Client contact:

NJ ≤ 4 days? Y N
Courier/Tracking #: 770300465165 Date/Tech:

Sample(s) for Radiation testing? Y N
Rad Screen (uCi)
Reportable SDWA Sample(s)? Y N
New Source? Y N
SDWA State of Origin?
New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

-No Sampler
9/27/22 BLP

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 7.19.22

November 11, 2022 Service Request No:E2200952

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3265649

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 01, 2022
For your reference, these analyses have been assigned our service request number **E2200952.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - Middletown	**Service Request No.:**	E2200952
Project:	3265649	**Date Received:**	10/01/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Ten samples were received for analysis at ALS Environmental in Houston on 10/01/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200456: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

B flags – Method Blanks

The Method Blank EQ2200456-01 contained low levels of target compounds below the Method Reporting Limit (MRL).

One compound, OCDD, was above the MRL (CRQL). ALS/Houston follows the ***EPA National Functional Guidelines for CDDs and CDFs, September 2005,*** which states on page 31, "The concentration of OCDD/OCDF in the method blank must be <3x the CRQL (MRL.):"

The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'
-

Client: ALS Environmental - Middletown **Service Request:**E2200952
Project: 3265649

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200952-001	3265649-001 (Hyde Park 1A)	9/25/2022	1230
E2200952-002	3265649-002 (Hyde Park 1B)	9/25/2022	1240
E2200952-003	3265649-003 (Hyde Park 2A)	9/25/2022	1140
E2200952-004	3265649-004 (Hyde Park 2B)	9/25/2022	1145
E2200952-005	3265649-005 (Hyde Park 3A)	9/25/2022	0955
E2200952-006	3265649-006 (Hyde Park 3B)	9/25/2022	1005
E2200952-007	3265649-007 (Hyde Park 4A)	9/25/2022	0905
E2200952-008	3265649-008 (Hyde Park 4B)	9/25/2022	0915
E2200952-009	3265649-009 (Hyde Park 5A)	9/25/2022	1040
E2200952-010	3265649-010 (Hyde Park 5B)	9/25/2022	1050

Service Request Summary

Folder #: **E2200952**
Client Name: ALS Environmental - Middletown
Project Name: 3265649
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/01/22
Internal Due Date: 11/7/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3265649
EDD: BASIC_WQC_CASNo

10 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2C
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200952-001	3265649-001 (Hyde Park 1A)	Soil	09/25/22 1230	II	II
E2200952-002	3265649-002 (Hyde Park 1B)	Soil	09/25/22 1240	II	II
E2200952-003	3265649-003 (Hyde Park 2A)	Soil	09/25/22 1140	II	II
E2200952-004	3265649-004 (Hyde Park 2B)	Soil	09/25/22 1145	II	II
E2200952-005	3265649-005 (Hyde Park 3A)	Soil	09/25/22 0955	II	II
E2200952-006	3265649-006 (Hyde Park 3B)	Soil	09/25/22 1005	II	II
E2200952-007	3265649-007 (Hyde Park 4A)	Soil	09/25/22 0905	II	II
E2200952-008	3265649-008 (Hyde Park 4B)	Soil	09/25/22 0915	II	II
E2200952-009	3265649-009 (Hyde Park 5A)	Soil	09/25/22 1040	II	II
E2200952-010	3265649-010 (Hyde Park 5B)	Soil	09/25/22 1050	II	II

Printed 11/11/2022 11:43:39 AM

Service Request Summary

Folder #:	**E2200952**
Client Name:	ALS Environmental - Middletown
Project Name:	3265649
Project Number:	

Report To:	Sarah Leung ALS Environmental - Middletown 301 Fulling Mill Road Middletown, PA 17057 USA
Phone Number:	717-944-5541
Cell Number:	
Fax Number:	
E-mail:	sarah.leung@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	10/01/22
Internal Due Date:	11/7/2022
QAP:	LAB QAP
Qualifier Set:	HRMS Qualifier Set
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	3265649
EDD:	BASIC_WQC_CASNo

10 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Location: EHRMS-WIC 2C

Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2228443	12/31/2022
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Health	C819-2022	11/14/2022

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22-00952 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
10/25/22	QC	001

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
10/26/22	SL	009

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E220095 2 | (DB-5MSUI) | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/11/22	JC	002-010

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/11/22	SL	002-010

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3265649

Bill To:

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Container Type: G
Container Size: 8oz
Perservative: None

ANALYSES/METHOD REQUESTED

DIOXIN METHOD 8290

Receipt Information (completed by Receiving Lab)

W.O. Temp: 3.6 Therm ID: IR31

Courier/Tracking #:

Purchase Order #: 3265649

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Enter Number of Containers Per Sample or Field Results Below.	Sample/COC Comments
1	3265649001 (Hyde Park 1A)	9/25/22	1230	G	S	1	
2	3265649002 (Hyde Park 1B)	9/25/22	1240	G	S	1	
3	3265649003 (Hyde Park 2A)	9/25/22	1140	G	S	1	
4	3265649004 (Hyde Park 2B)	9/25/22	1145	G	S	1	
5	3265649005 (Hyde Park 3A)	9/25/22	0955	G	S	1	
6	3265649006 (Hyde Park 3B)	9/25/22	1005	G	S	1	
7	3265649007 (Hyde Park 4A)	9/25/22	0905	G	S	1	
8	3265649008 (Hyde Park 4B)	9/25/22	0915	G	S	1	
9	3265649009 (Hyde Park 5A)	9/25/22	1040	G	S	1	
10	3265649010 (Hyde Park 5B)	9/25/22	1050	G	S	1	

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9/26/22		2	10/11/22	0946
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD [ ] other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist JK

Client/Project ALS-MI Thermometer ID IR21

Date/Time Received: 10/11/22 Initials: CA Date/Time Logged in: 10/11/22 Initials CA

1. Method of delivery: ○ US Mail ☒ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ☒ Baggies ☒ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 6072		10/11/22	0940	CA	3.0	☒
5857 1123 6083		10/11/22	0940	CA	3.4	☒
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

11/1/2022 4:18 PM

Prep Run#: 407879 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/10/22 10:11

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200857-014	AOI3-T3-O1-020	.01	8290A/PCDD PCDF			Soil	10.245g	brown Soil
2	E2200949-001	MI2A	.01	8290A/PCDD PCDF			Soil	10.247g	Brown Soil Mixed with rocks
3	E2200949-002	MI2BI	.01	8290A/PCDD PCDF			Soil	11.299g	Brown Soil Mixed with rocks
4	E2200949-003	MI2BII	.01	8290A/PCDD PCDF			Soil	10.101g	Brown Soil Mixed with rocks
5	E2200949-004	MI2BIII	.01	8290A/PCDD PCDF			Soil	10.224g	Brown Soil Mixed with rocks
6	E2200949-005	MI2C	.01	8290A/PCDD PCDF			Soil	10.056g	Brown Soil Mixed with rocks
7	E2200952-001	3265649-001 (Hyde Park 1A)	.01	8290A/PCDD PCDF			Soil	10.355g	
8	E2200952-002	3265649-002 (Hyde Park 1B)	.01	8290A/PCDD PCDF			Soil	10.263g	
9	E2200952-003	3265649-003 (Hyde Park 2A)	.01	8290A/PCDD PCDF			Soil	10.029g	
10	E2200952-004	3265649-004 (Hyde Park 2B)	.01	8290A/PCDD PCDF			Soil	10.044g	
11	E2200952-005	3265649-005 (Hyde Park 3A)	.01	8290A/PCDD PCDF			Soil	10.205g	
12	E2200952-006	3265649-006 (Hyde Park 3B)	.01	8290A/PCDD PCDF			Soil	10.249g	
13	E2200952-007	3265649-007 (Hyde Park 4A)	.01	8290A/PCDD PCDF			Soil	10.282g	
14	E2200952-008	3265649-008 (Hyde Park 4B)	.01	8290A/PCDD PCDF			Soil	10.215g	
15	E2200952-009	3265649-009 (Hyde Park 5A)	.01	8290A/PCDD PCDF			Soil	10.221g	
16	E2200952-010	3265649-010 (Hyde Park 5B)	.01	8290A/PCDD PCDF			Soil	10.159g	
17	EQ2200456-01	MB		8290A/PCDD PCDF			Solid	10.192g	
18	EQ2200456-02	LCS		8290A/PCDD PCDF			Solid	10.178g	
19	EQ2200456-03	DLCS		8290A/PCDD PCDF			Solid	10.175g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225221 Logbook Ref: NB 09/30/2022 225221 ng/ml Expires On: 03/29/2023

EQ2200456-02	100.00µL	EQ2200456-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225277 Logbook Ref: tw 10/04/22 225277 Expires On: 02/28/2023

E2200857-014	100.00µL	E2200949-001	100.00µL	E2200949-002	100.00µL	E2200949-003	100.00µL	E2200949-004	100.00µL	E2200949-005	100.00µL
E2200952-001	100.00µL	E2200952-002	100.00µL	E2200952-003	100.00µL	E2200952-004	100.00µL	E2200952-005	100.00µL	E2200952-006	100.00µL
E2200952-007	100.00µL	E2200952-008	100.00µL	E2200952-009	100.00µL	E2200952-010	100.00µL	EQ2200456-01	100.00µL	EQ2200456-02	100.00µL
EQ2200456-03	100.00µL										

Name: 1613B Labeled Working Standard Inventory ID 225378 Logbook Ref: tw 10/10/22 225378 Expires On: 03/26/2023

E2200857-014	1,000.00µL	E2200949-001	1,000.00µL	E2200949-002	1,000.00µL	E2200949-003	1,000.00µL	E2200949-004	1,000.00µL	E2200949-005	1,000.00µL
E2200952-001	1,000.00µL	E2200952-002	1,000.00µL	E2200952-003	1,000.00µL	E2200952-004	1,000.00µL	E2200952-005	1,000.00µL	E2200952-006	1,000.00µL
E2200952-007	1,000.00µL	E2200952-008	1,000.00µL	E2200952-009	1,000.00µL	E2200952-010	1,000.00µL	EQ2200456-01	1,000.00µL	EQ2200456-02	1,000.00µL

Preparation Information Benchsheet

Prep Run#: 407879 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/10/22 10:11
EQ2200456-03 1,000.00µL

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/10/22 10:11	Started:	10/11/22 10:00	Started:	10/11/22 12:00	Started:	10/12/22 09:00
Finished:	10/11/22 09:00	Finished:	10/11/22 11:00	Finished:	10/11/22 15:00	Finished:	10/12/22 12:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: TW Date: 10/10/22

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-001 (Hyde Park 1A)	**Units:**	ng/Kg
Lab Code:	E2200952-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/22/22 08:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.355g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P539802	**Blank File Name:**	P539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539794

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.788	**J**	0.237	0.891	0.68	1.001	1
1,2,3,7,8-PeCDD	2.55	**JK**	0.201	4.45	1.26	1.000	1
1,2,3,6,7,8-HxCDD	29.5		0.259	4.45	1.16	1.000	1
1,2,3,4,7,8-HxCDD	5.47		0.272	4.45	1.25	1.000	1
1,2,3,7,8,9-HxCDD	19.4		0.266	4.45	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	861		0.384	4.45	1.03	1.000	1
OCDD	6770		2.55	8.91	0.90	1.000	1
2,3,7,8-TCDF	13.5		0.345	0.891	0.65	1.001	1
1,2,3,7,8-PeCDF	3.14	**J**	0.255	4.45	1.35	1.001	1
2,3,4,7,8-PeCDF	4.02	**J**	0.169	4.45	1.34	1.001	1
1,2,3,6,7,8-HxCDF	4.20	**J**	0.234	4.45	1.16	1.000	1
1,2,3,7,8,9-HxCDF	1.25	**J**	0.229	4.45	1.20	1.000	1
1,2,3,4,7,8-HxCDF	5.45		0.216	4.45	1.12	1.000	1
2,3,4,6,7,8-HxCDF	3.77	**J**	0.198	4.45	1.18	1.000	1
1,2,3,4,6,7,8-HpCDF	95.0		0.164	4.45	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	3.85	**JK**	0.167	4.45	1.39	1.000	1
OCDF	210		0.369	8.91	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-001 (Hyde Park 1A)	**Units:**	ng/Kg
Lab Code:	E2200952-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/22/22 08:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.355g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P539802	**Blank File Name:**	P539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539794

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	11.5		0.237	0.891	0.70		1
Total Penta-Dioxins	31.2		0.201	4.45	1.62		1
Total Hexa-Dioxins	279		0.266	4.45	1.26		1
Total Hepta-Dioxins	1710		0.384	4.45	1.03		1
Total Tetra-Furans	228		0.345	0.891	0.69		1
Total Penta-Furans	45.2		0.112	4.45	1.55		1
Total Hexa-Furans	79.4		0.218	4.45	1.22		1
Total Hepta-Furans	260		0.165	4.45	1.00		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-001 (Hyde Park 1A)	**Units:**	Percent
Lab Code:	E2200952-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/22/22 08:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.355g	**Instrument Name:**	E-HRMS-08
		GC Column:	DB-5MSUI
Data File Name:	P539802	**Blank File Name:**	P539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539794

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1606.457	80		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1533.273	77		40-135	1.60	1.203
13C-1,2,3,4,7,8-HxCDD	2000	1162.140	58		40-135	1.27	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1150.907	58		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1153.531	58		40-135	1.06	1.066
13C-OCDD	4000	2033.231	51		40-135	0.88	1.138
13C-2,3,7,8-TCDF	2000	1378.744	69		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1708.926	85		40-135	1.59	1.156
13C-2,3,4,7,8-PeCDF	2000	2633.988	132		40-135	1.58	1.192
13C-1,2,3,4,7,8-HxCDF	2000	1284.094	64		40-135	0.50	0.969
13C-1,2,3,6,7,8-HxCDF	2000	1126.294	56		40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	1376.870	69		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1454.933	73		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	995.733	50		40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	1203.729	60		40-135	0.43	1.078
37Cl-2,3,7,8-TCDD	800	556.146	70		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-001 (Hyde Park 1A)	**Units:**	ng/Kg
Lab Code:	E2200952-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.788**	0.237	0.891	1	1	0.788
1,2,3,7,8-PeCDD	**2.55**	0.201	4.45	1	1	2.55
1,2,3,6,7,8-HxCDD	**29.5**	0.259	4.45	1	0.1	2.95
1,2,3,4,7,8-HxCDD	**5.47**	0.272	4.45	1	0.1	0.547
1,2,3,7,8,9-HxCDD	**19.4**	0.266	4.45	1	0.1	1.94
1,2,3,4,6,7,8-HpCDD	**861**	0.384	4.45	1	0.01	8.61
OCDD	**6770**	2.55	8.91	1	0.0003	2.03
2,3,7,8-TCDF	**13.5**	0.345	0.891	1	0.1	1.35
1,2,3,7,8-PeCDF	**3.14**	0.255	4.45	1	0.03	0.0942
2,3,4,7,8-PeCDF	**4.02**	0.169	4.45	1	0.3	1.21
1,2,3,6,7,8-HxCDF	**4.20**	0.234	4.45	1	0.1	0.420
1,2,3,7,8,9-HxCDF	**1.25**	0.229	4.45	1	0.1	0.125
1,2,3,4,7,8-HxCDF	**5.45**	0.216	4.45	1	0.1	0.545
2,3,4,6,7,8-HxCDF	**3.77**	0.198	4.45	1	0.1	0.377
1,2,3,4,6,7,8-HpCDF	**95.0**	0.164	4.45	1	0.01	0.950
1,2,3,4,7,8,9-HpCDF	**3.85**	0.167	4.45	1	0.01	0.0385
OCDF	**210**	0.369	8.91	1	0.0003	0.0630
		Total TEQ				24.6

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-001 (Hyde Park 1A)	**Units:**	Percent
Lab Code:	E2200952-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	6.1193g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	54.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-002 (Hyde Park 1B)	**Units:**	ng/Kg
Lab Code:	E2200952-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 00:33
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.263g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539898	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.148	0.796			1
1,2,3,7,8-PeCDD	0.194**JK**		0.150	3.98	2.31	1.001	1
1,2,3,6,7,8-HxCDD	0.510**J**		0.0263	3.98	1.30	1.000	1
1,2,3,4,7,8-HxCDD	0.165**JK**		0.0281	3.98	0.64	1.000	1
1,2,3,7,8,9-HxCDD	0.340**JK**		0.0273	3.98	0.95	1.007	1
1,2,3,4,6,7,8-HpCDD	10.1		0.130	3.98	1.05	1.000	1
OCDD	173		1.67	7.96	0.91	1.000	1
2,3,7,8-TCDF	1.22		0.146	0.796	0.65	1.001	1
1,2,3,7,8-PeCDF	0.455**J**		0.152	3.98	1.38	1.001	1
2,3,4,7,8-PeCDF	0.241**JK**		0.0918	3.98	1.09	1.001	1
1,2,3,6,7,8-HxCDF	0.325**J**		0.0483	3.98	1.17	1.000	1
1,2,3,7,8,9-HxCDF	0.421**JK**		0.0540	3.98	0.81	1.000	1
1,2,3,4,7,8-HxCDF	0.443**J**		0.0475	3.98	1.36	1.001	1
2,3,4,6,7,8-HxCDF	0.323**J**		0.0406	3.98	1.06	1.001	1
1,2,3,4,6,7,8-HpCDF	1.53**JK**		0.0774	3.98	1.36	1.000	1
1,2,3,4,7,8,9-HpCDF	0.744**J**		0.0840	3.98	0.91	1.000	1
OCDF	7.89**J**		0.503	7.96	0.90	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-002 (Hyde Park 1B)	**Units:**	ng/Kg
Lab Code:	E2200952-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 00:33
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.263g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539898	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.148	0.796			1
Total Penta-Dioxins	ND	U	0.150	3.98			1
Total Hexa-Dioxins	5.15		0.0273	3.98	1.41		1
Total Hepta-Dioxins	28.8		0.130	3.98	1.02		1
Total Tetra-Furans	1.30		0.146	0.796	0.75		1
Total Penta-Furans	0.584**J**		0.115	3.98	1.61		1
Total Hexa-Furans	2.32**J**		0.0470	3.98	1.27		1
Total Hepta-Furans	2.92**J**		0.0806	3.98	0.89		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-002 (Hyde Park 1B)	**Units:**	Percent
Lab Code:	E2200952-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 00:33
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.263g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539898	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	920.372	46		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	766.436	38	**Y**	40-135	1.57	1.204
13C-1,2,3,4,7,8-HxCDD	2000	541.250	27	**Y**	40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	569.563	28	**Y**	40-135	1.29	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	415.679	21	**Y**	40-135	1.07	1.067
13C-OCDD	4000	538.234	13	**Y**	40-135	0.88	1.139
13C-2,3,7,8-TCDF	2000	727.104	36	**Y**	40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	756.610	38	**Y**	40-135	1.59	1.158
13C-2,3,4,7,8-PeCDF	2000	1249.786	62		40-135	1.61	1.193
13C-1,2,3,4,7,8-HxCDF	2000	526.491	26	**Y**	40-135	0.51	0.969
13C-1,2,3,6,7,8-HxCDF	2000	521.171	26	**Y**	40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	534.763	27	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	652.653	33	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	318.835	16	**Y**	40-135	0.42	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	391.372	20	**Y**	40-135	0.43	1.079
37Cl-2,3,7,8-TCDD	800	578.969	72		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-002 (Hyde Park 1B)	**Units:**	ng/Kg
Lab Code:	E2200952-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.148	0.796	1	1	
1,2,3,7,8-PeCDD	**0.194**	0.150	3.98	1	1	0.194
1,2,3,6,7,8-HxCDD	**0.510**	0.0263	3.98	1	0.1	0.0510
1,2,3,4,7,8-HxCDD	**0.165**	0.0281	3.98	1	0.1	0.0165
1,2,3,7,8,9-HxCDD	**0.340**	0.0273	3.98	1	0.1	0.0340
1,2,3,4,6,7,8-HpCDD	**10.1**	0.130	3.98	1	0.01	0.101
OCDD	**173**	1.67	7.96	1	0.0003	0.0519
2,3,7,8-TCDF	**1.22**	0.146	0.796	1	0.1	0.122
1,2,3,7,8-PeCDF	**0.455**	0.152	3.98	1	0.03	0.0137
2,3,4,7,8-PeCDF	**0.241**	0.0918	3.98	1	0.3	0.0723
1,2,3,6,7,8-HxCDF	**0.325**	0.0483	3.98	1	0.1	0.0325
1,2,3,7,8,9-HxCDF	**0.421**	0.0540	3.98	1	0.1	0.0421
1,2,3,4,7,8-HxCDF	**0.443**	0.0475	3.98	1	0.1	0.0443
2,3,4,6,7,8-HxCDF	**0.323**	0.0406	3.98	1	0.1	0.0323
1,2,3,4,6,7,8-HpCDF	**1.53**	0.0774	3.98	1	0.01	0.0153
1,2,3,4,7,8,9-HpCDF	**0.744**	0.0840	3.98	1	0.01	0.00744
OCDF	**7.89**	0.503	7.96	1	0.0003	0.00237
		Total TEQ				0.833

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-002 (Hyde Park 1B)	**Units:**	Percent
Lab Code:	E2200952-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	5.8839g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	61.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-003 (Hyde Park 2A)	**Units:**	ng/Kg
Lab Code:	E2200952-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 01:22
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.029g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539899	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.320	**JK**	0.151	0.937	0.44	1.001	1
1,2,3,7,8-PeCDD	2.04	**JK**	0.151	4.69	1.21	1.001	1
1,2,3,6,7,8-HxCDD	26.6		0.175	4.69	1.14	1.000	1
1,2,3,4,7,8-HxCDD	2.36	**JK**	0.191	4.69	0.95	1.000	1
1,2,3,7,8,9-HxCDD	13.9		0.183	4.69	1.17	1.007	1
1,2,3,4,6,7,8-HpCDD	395		0.408	4.69	1.02	1.000	1
OCDD	3380		3.81	9.37	0.89	1.000	1
2,3,7,8-TCDF	2.12		0.133	0.937	0.67	1.001	1
1,2,3,7,8-PeCDF	1.35	**J**	0.391	4.69	1.35	1.001	1
2,3,4,7,8-PeCDF	3.15	**J**	0.224	4.69	1.34	1.002	1
1,2,3,6,7,8-HxCDF	8.43		0.716	4.69	1.14	1.000	1
1,2,3,7,8,9-HxCDF	1.25	**J**	0.875	4.69	1.11	1.000	1
1,2,3,4,7,8-HxCDF	4.10	**J**	0.767	4.69	1.17	1.000	1
2,3,4,6,7,8-HxCDF	4.84		0.640	4.69	1.23	1.000	1
1,2,3,4,6,7,8-HpCDF	279		0.483	4.69	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	3.21	**J**	0.513	4.69	0.97	1.000	1
OCDF	216		1.21	9.37	0.85	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-003 (Hyde Park 2A)	**Units:**	ng/Kg
Lab Code:	E2200952-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 01:22
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.029g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539899	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	1.58		0.151	0.937	0.68		1
Total Penta-Dioxins	30.5		0.151	4.69	1.51		1
Total Hexa-Dioxins	254		0.182	4.69	1.24		1
Total Hepta-Dioxins	839		0.408	4.69	1.02		1
Total Tetra-Furans	51.0		0.133	0.937	0.75		1
Total Penta-Furans	54.4		0.118	4.69	1.33		1
Total Hexa-Furans	163		0.738	4.69	1.20		1
Total Hepta-Furans	535		0.498	4.69	1.00		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-003 (Hyde Park 2A)	**Units:**	Percent
Lab Code:	E2200952-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 01:22
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.029g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539899	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	998.535	50		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	805.479	40		40-135	1.59	1.204
13C-1,2,3,4,7,8-HxCDD	2000	601.780	30	**Y**	40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	658.316	33	**Y**	40-135	1.28	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	514.594	26	**Y**	40-135	1.07	1.067
13C-OCDD	4000	730.291	18	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	869.770	43		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	812.417	41		40-135	1.57	1.158
13C-2,3,4,7,8-PeCDF	2000	1388.099	69		40-135	1.59	1.194
13C-1,2,3,4,7,8-HxCDF	2000	618.507	31	**Y**	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	612.708	31	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	605.731	30	**Y**	40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	758.788	38	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	406.793	20	**Y**	40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	467.909	23	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	601.878	75		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-003 (Hyde Park 2A)	**Units:**	ng/Kg
Lab Code:	E2200952-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.320**	0.151	0.937	1	1	0.320
1,2,3,7,8-PeCDD	**2.04**	0.151	4.69	1	1	2.04
1,2,3,6,7,8-HxCDD	**26.6**	0.175	4.69	1	0.1	2.66
1,2,3,4,7,8-HxCDD	**2.36**	0.191	4.69	1	0.1	0.236
1,2,3,7,8,9-HxCDD	**13.9**	0.183	4.69	1	0.1	1.39
1,2,3,4,6,7,8-HpCDD	**395**	0.408	4.69	1	0.01	3.95
OCDD	**3380**	3.81	9.37	1	0.0003	1.01
2,3,7,8-TCDF	**2.12**	0.133	0.937	1	0.1	0.212
1,2,3,7,8-PeCDF	**1.35**	0.391	4.69	1	0.03	0.0405
2,3,4,7,8-PeCDF	**3.15**	0.224	4.69	1	0.3	0.945
1,2,3,6,7,8-HxCDF	**8.43**	0.716	4.69	1	0.1	0.843
1,2,3,7,8,9-HxCDF	**1.25**	0.875	4.69	1	0.1	0.125
1,2,3,4,7,8-HxCDF	**4.10**	0.767	4.69	1	0.1	0.410
2,3,4,6,7,8-HxCDF	**4.84**	0.640	4.69	1	0.1	0.484
1,2,3,4,6,7,8-HpCDF	**279**	0.483	4.69	1	0.01	2.79
1,2,3,4,7,8,9-HpCDF	**3.21**	0.513	4.69	1	0.01	0.0321
OCDF	**216**	1.21	9.37	1	0.0003	0.0648
		Total TEQ				17.6

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-003 (Hyde Park 2A)	**Units:**	Percent
Lab Code:	E2200952-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	7.3948g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	53.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-004 (Hyde Park 2B)	**Units:**	ng/Kg
Lab Code:	E2200952-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:10
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.044g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539900	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.177	0.815			1
1,2,3,7,8-PeCDD	ND	U	0.0734	4.07			1
1,2,3,6,7,8-HxCDD	0.387**JK**		0.0522	4.07	1.56	1.000	1
1,2,3,4,7,8-HxCDD	0.176**J**		0.0568	4.07	1.07	1.000	1
1,2,3,7,8,9-HxCDD	0.432**J**		0.0545	4.07	1.35	1.006	1
1,2,3,4,6,7,8-HpCDD	12.9		0.241	4.07	1.05	1.000	1
OCDD	489		1.33	8.15	0.87	1.000	1
2,3,7,8-TCDF	1.85		0.0778	0.815	0.79	1.001	1
1,2,3,7,8-PeCDF	0.640**J**		0.0885	4.07	1.38	1.000	1
2,3,4,7,8-PeCDF	0.319**J**		0.0515	4.07	1.51	1.001	1
1,2,3,6,7,8-HxCDF	0.339**JK**		0.0457	4.07	0.83	1.000	1
1,2,3,7,8,9-HxCDF	0.187**JK**		0.0520	4.07	0.70	1.001	1
1,2,3,4,7,8-HxCDF	0.653**J**		0.0465	4.07	1.13	1.000	1
2,3,4,6,7,8-HxCDF	0.274**JK**		0.0410	4.07	1.94	1.000	1
1,2,3,4,6,7,8-HpCDF	4.29		0.102	4.07	0.91	1.000	1
1,2,3,4,7,8,9-HpCDF	0.483**J**		0.104	4.07	0.91	1.000	1
OCDF	26.4		0.420	8.15	0.92	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-004 (Hyde Park 2B)	**Units:**	ng/Kg
Lab Code:	E2200952-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:10
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.044g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539900	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.177	0.815			1
Total Penta-Dioxins	0.166**J**		0.0734	4.07	1.74		1
Total Hexa-Dioxins	3.85**J**		0.0545	4.07	1.22		1
Total Hepta-Dioxins	28.2		0.241	4.07	1.05		1
Total Tetra-Furans	3.81		0.0778	0.815	0.67		1
Total Penta-Furans	1.88**J**		0.0659	4.07	1.70		1
Total Hexa-Furans	3.28**J**		0.0458	4.07	1.34		1
Total Hepta-Furans	14.4		0.103	4.07	0.91		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-004 (Hyde Park 2B)	**Units:**	Percent
Lab Code:	E2200952-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:10
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.044g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539900	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1451.626	73		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1248.562	62		40-135	1.60	1.204
13C-1,2,3,4,7,8-HxCDD	2000	933.779	47		40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1004.169	50		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	762.694	38	**Y**	40-135	1.06	1.067
13C-OCDD	4000	1024.943	26	**Y**	40-135	0.91	1.138
13C-2,3,7,8-TCDF	2000	1197.302	60		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1251.420	63		40-135	1.58	1.158
13C-2,3,4,7,8-PeCDF	2000	2034.418	102		40-135	1.58	1.193
13C-1,2,3,4,7,8-HxCDF	2000	961.192	48		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	922.823	46		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	963.868	48		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1141.884	57		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	620.885	31	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	771.426	39	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	610.236	76		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-004 (Hyde Park 2B)	**Units:**	ng/Kg
Lab Code:	E2200952-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.177	0.815	1	1	
1,2,3,7,8-PeCDD	ND	0.0734	4.07	1	1	
1,2,3,6,7,8-HxCDD	**0.387**	0.0522	4.07	1	0.1	0.0387
1,2,3,4,7,8-HxCDD	**0.176**	0.0568	4.07	1	0.1	0.0176
1,2,3,7,8,9-HxCDD	**0.432**	0.0545	4.07	1	0.1	0.0432
1,2,3,4,6,7,8-HpCDD	**12.9**	0.241	4.07	1	0.01	0.129
OCDD	**489**	1.33	8.15	1	0.0003	0.147
2,3,7,8-TCDF	**1.85**	0.0778	0.815	1	0.1	0.185
1,2,3,7,8-PeCDF	**0.640**	0.0885	4.07	1	0.03	0.0192
2,3,4,7,8-PeCDF	**0.319**	0.0515	4.07	1	0.3	0.0957
1,2,3,6,7,8-HxCDF	**0.339**	0.0457	4.07	1	0.1	0.0339
1,2,3,7,8,9-HxCDF	**0.187**	0.0520	4.07	1	0.1	0.0187
1,2,3,4,7,8-HxCDF	**0.653**	0.0465	4.07	1	0.1	0.0653
2,3,4,6,7,8-HxCDF	**0.274**	0.0410	4.07	1	0.1	0.0274
1,2,3,4,6,7,8-HpCDF	**4.29**	0.102	4.07	1	0.01	0.0429
1,2,3,4,7,8,9-HpCDF	**0.483**	0.104	4.07	1	0.01	0.00483
OCDF	**26.4**	0.420	8.15	1	0.0003	0.00792
		Total TEQ				0.876

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-004 (Hyde Park 2B)	**Units:**	Percent
Lab Code:	E2200952-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	6.0869g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	61.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:55
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-005 (Hyde Park 3A)	**Units:**	ng/Kg
Lab Code:	E2200952-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:58
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.205g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539901	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.134	0.921			1
1,2,3,7,8-PeCDD	2.34**J**		0.111	4.60	1.63	1.000	1
1,2,3,6,7,8-HxCDD	5.41		0.0898	4.60	1.26	1.000	1
1,2,3,4,7,8-HxCDD	4.14**J**		0.0971	4.60	1.18	1.000	1
1,2,3,7,8,9-HxCDD	5.73		0.0934	4.60	1.14	1.007	1
1,2,3,4,6,7,8-HpCDD	40.0		0.237	4.60	1.00	1.000	1
OCDD	65.4		0.562	9.21	0.89	1.000	1
2,3,7,8-TCDF	2.13		0.113	0.921	0.69	1.001	1
1,2,3,7,8-PeCDF	2.74**JK**		0.371	4.60	1.30	1.001	1
2,3,4,7,8-PeCDF	4.59**J**		0.226	4.60	1.43	1.001	1
1,2,3,6,7,8-HxCDF	11.6		0.428	4.60	1.14	1.000	1
1,2,3,7,8,9-HxCDF	7.08		0.533	4.60	1.08	1.001	1
1,2,3,4,7,8-HxCDF	11.7		0.431	4.60	1.12	1.000	1
2,3,4,6,7,8-HxCDF	16.1		0.421	4.60	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	51.3		0.172	4.60	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	7.22		0.185	4.60	0.89	1.000	1
OCDF	24.3		0.493	9.21	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:55
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-005 (Hyde Park 3A)	**Units:**	ng/Kg
Lab Code:	E2200952-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:58
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.205g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539901	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.788	**J**	0.134	0.921	0.86		1
Total Penta-Dioxins	27.0		0.111	4.60	1.58		1
Total Hexa-Dioxins	69.4		0.0933	4.60	1.24		1
Total Hepta-Dioxins	77.7		0.237	4.60	0.97		1
Total Tetra-Furans	34.4		0.113	0.921	0.86		1
Total Penta-Furans	33.5		0.116	4.60	1.48		1
Total Hexa-Furans	111		0.449	4.60	1.27		1
Total Hepta-Furans	86.9		0.178	4.60	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:55
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-005 (Hyde Park 3A)	**Units:**	Percent
Lab Code:	E2200952-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 02:58
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.205g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539901	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1535.863	77		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1407.973	70		40-135	1.58	1.204
13C-1,2,3,4,7,8-HxCDD	2000	1157.583	58		40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1241.959	62		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1027.856	51		40-135	1.05	1.068
13C-OCDD	4000	1509.759	38	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	1256.586	63		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1414.438	71		40-135	1.58	1.158
13C-2,3,4,7,8-PeCDF	2000	2247.821	112		40-135	1.58	1.193
13C-1,2,3,4,7,8-HxCDF	2000	1203.358	60		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1161.624	58		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1151.386	58		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1301.406	65		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	860.909	43		40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1023.198	51		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	549.598	69		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:55
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-005 (Hyde Park 3A)	**Units:**	ng/Kg
Lab Code:	E2200952-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.134	0.921	1	1	
1,2,3,7,8-PeCDD	**2.34**	0.111	4.60	1	1	2.34
1,2,3,6,7,8-HxCDD	**5.41**	0.0898	4.60	1	0.1	0.541
1,2,3,4,7,8-HxCDD	**4.14**	0.0971	4.60	1	0.1	0.414
1,2,3,7,8,9-HxCDD	**5.73**	0.0934	4.60	1	0.1	0.573
1,2,3,4,6,7,8-HpCDD	**40.0**	0.237	4.60	1	0.01	0.400
OCDD	**65.4**	0.562	9.21	1	0.0003	0.0196
2,3,7,8-TCDF	**2.13**	0.113	0.921	1	0.1	0.213
1,2,3,7,8-PeCDF	**2.74**	0.371	4.60	1	0.03	0.0822
2,3,4,7,8-PeCDF	**4.59**	0.226	4.60	1	0.3	1.38
1,2,3,6,7,8-HxCDF	**11.6**	0.428	4.60	1	0.1	1.16
1,2,3,7,8,9-HxCDF	**7.08**	0.533	4.60	1	0.1	0.708
1,2,3,4,7,8-HxCDF	**11.7**	0.431	4.60	1	0.1	1.17
2,3,4,6,7,8-HxCDF	**16.1**	0.421	4.60	1	0.1	1.61
1,2,3,4,6,7,8-HpCDF	**51.3**	0.172	4.60	1	0.01	0.513
1,2,3,4,7,8,9-HpCDF	**7.22**	0.185	4.60	1	0.01	0.0722
OCDF	**24.3**	0.493	9.21	1	0.0003	0.00729
		Total TEQ				11.2

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:55
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-005 (Hyde Park 3A)	**Units:**	Percent
Lab Code:	E2200952-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	5.0324g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	53.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-006 (Hyde Park 3B)	**Units:**	ng/Kg
Lab Code:	E2200952-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 03:47
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.249g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539902	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0951	0.825			1
1,2,3,7,8-PeCDD	ND	U	0.125	4.13			1
1,2,3,6,7,8-HxCDD	0.245**JK**		0.0750	4.13	1.73	1.000	1
1,2,3,4,7,8-HxCDD	0.135**JK**		0.0808	4.13	0.86	1.000	1
1,2,3,7,8,9-HxCDD	0.356**J**		0.0780	4.13	1.11	1.007	1
1,2,3,4,6,7,8-HpCDD	8.94		0.222	4.13	0.99	1.000	1
OCDD	345		0.998	8.25	0.88	1.000	1
2,3,7,8-TCDF	1.83**K**		0.114	0.825	0.57	1.001	1
1,2,3,7,8-PeCDF	0.550**JK**		0.0938	4.13	1.23	1.001	1
2,3,4,7,8-PeCDF	0.308**JK**		0.0572	4.13	1.91	1.001	1
1,2,3,6,7,8-HxCDF	0.333**JK**		0.0798	4.13	0.91	1.000	1
1,2,3,7,8,9-HxCDF	0.211**J**		0.0966	4.13	1.37	1.000	1
1,2,3,4,7,8-HxCDF	0.602**J**		0.0841	4.13	1.07	1.000	1
2,3,4,6,7,8-HxCDF	0.372**JK**		0.0780	4.13	0.96	1.000	1
1,2,3,4,6,7,8-HpCDF	2.72**J**		0.0529	4.13	1.02	1.000	1
1,2,3,4,7,8,9-HpCDF	0.364**J**		0.0547	4.13	0.95	1.000	1
OCDF	10.8		0.353	8.25	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-006 (Hyde Park 3B)	**Units:**	ng/Kg
Lab Code:	E2200952-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 03:47
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.249g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539902	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0951	0.825			1
Total Penta-Dioxins	ND	U	0.125	4.13			1
Total Hexa-Dioxins	2.06**J**		0.0778	4.13	1.07		1
Total Hepta-Dioxins	23.0		0.222	4.13	1.01		1
Total Tetra-Furans	4.16		0.114	0.825	0.84		1
Total Penta-Furans	1.40**J**		0.0715	4.13	1.64		1
Total Hexa-Furans	1.36**J**		0.0839	4.13	1.40		1
Total Hepta-Furans	5.77		0.0537	4.13	1.02		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-006 (Hyde Park 3B)	**Units:**	Percent
Lab Code:	E2200952-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 03:47
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.249g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539902	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1360.440	68		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1184.340	59		40-135	1.57	1.204
13C-1,2,3,4,7,8-HxCDD	2000	927.488	46		40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1013.726	51		40-135	1.30	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	779.339	39	**Y**	40-135	1.06	1.067
13C-OCDD	4000	1018.185	25	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	1142.383	57		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	1184.467	59		40-135	1.58	1.158
13C-2,3,4,7,8-PeCDF	2000	1931.554	97		40-135	1.57	1.194
13C-1,2,3,4,7,8-HxCDF	2000	961.844	48		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	928.545	46		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	933.055	47		40-135	0.51	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1046.803	52		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	651.188	33	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	783.805	39	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	578.502	72		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-006 (Hyde Park 3B)	**Units:**	ng/Kg
Lab Code:	E2200952-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0951	0.825	1	1	
1,2,3,7,8-PeCDD	ND	0.125	4.13	1	1	
1,2,3,6,7,8-HxCDD	**0.245**	0.0750	4.13	1	0.1	0.0245
1,2,3,4,7,8-HxCDD	**0.135**	0.0808	4.13	1	0.1	0.0135
1,2,3,7,8,9-HxCDD	**0.356**	0.0780	4.13	1	0.1	0.0356
1,2,3,4,6,7,8-HpCDD	**8.94**	0.222	4.13	1	0.01	0.0894
OCDD	**345**	0.998	8.25	1	0.0003	0.104
2,3,7,8-TCDF	**1.83**	0.114	0.825	1	0.1	0.183
1,2,3,7,8-PeCDF	**0.550**	0.0938	4.13	1	0.03	0.0165
2,3,4,7,8-PeCDF	**0.308**	0.0572	4.13	1	0.3	0.0924
1,2,3,6,7,8-HxCDF	**0.333**	0.0798	4.13	1	0.1	0.0333
1,2,3,7,8,9-HxCDF	**0.211**	0.0966	4.13	1	0.1	0.0211
1,2,3,4,7,8-HxCDF	**0.602**	0.0841	4.13	1	0.1	0.0602
2,3,4,6,7,8-HxCDF	**0.372**	0.0780	4.13	1	0.1	0.0372
1,2,3,4,6,7,8-HpCDF	**2.72**	0.0529	4.13	1	0.01	0.0272
1,2,3,4,7,8,9-HpCDF	**0.364**	0.0547	4.13	1	0.01	0.00364
OCDF	**10.8**	0.353	8.25	1	0.0003	0.00324
		Total TEQ				0.745

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-006 (Hyde Park 3B)	**Units:**	Percent
Lab Code:	E2200952-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	5.5194g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-007 (Hyde Park 4A)	**Units:**	ng/Kg
Lab Code:	E2200952-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 04:35
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.282g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539903	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.472	**JK**	0.140	0.950	0.59	1.001	1
1,2,3,7,8-PeCDD	1.73	**JK**	0.175	4.75	1.25	1.001	1
1,2,3,6,7,8-HxCDD	21.5		0.230	4.75	1.21	1.000	1
1,2,3,4,7,8-HxCDD	4.30	**J**	0.246	4.75	1.11	1.000	1
1,2,3,7,8,9-HxCDD	13.3		0.239	4.75	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	637		1.11	4.75	1.03	1.000	1
OCDD	4730		2.91	9.50	0.88	1.000	1
2,3,7,8-TCDF	10.4		0.0937	0.950	0.80	1.001	1
1,2,3,7,8-PeCDF	1.46	**J**	0.258	4.75	1.64	1.001	1
2,3,4,7,8-PeCDF	2.80	**JK**	0.144	4.75	1.21	1.001	1
1,2,3,6,7,8-HxCDF	3.17	**J**	0.318	4.75	1.22	1.000	1
1,2,3,7,8,9-HxCDF	0.718	**JK**	0.383	4.75	0.69	1.000	1
1,2,3,4,7,8-HxCDF	2.79	**JK**	0.319	4.75	0.93	1.000	1
2,3,4,6,7,8-HxCDF	2.84	**J**	0.269	4.75	1.31	1.000	1
1,2,3,4,6,7,8-HpCDF	73.0		0.508	4.75	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	2.86	**J**	0.559	4.75	0.93	1.000	1
OCDF	175		0.917	9.50	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-007 (Hyde Park 4A)	**Units:**	ng/Kg
Lab Code:	E2200952-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 04:35
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.282g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539903	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	1.76		0.140	0.950	0.75		1
Total Penta-Dioxins	24.4		0.175	4.75	1.47		1
Total Hexa-Dioxins	220		0.238	4.75	1.25		1
Total Hepta-Dioxins	1270		1.11	4.75	1.01		1
Total Tetra-Furans	184		0.0937	0.950	0.66		1
Total Penta-Furans	41.5		0.119	4.75	1.37		1
Total Hexa-Furans	59.7		0.316	4.75	1.24		1
Total Hepta-Furans	225		0.533	4.75	1.03		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-007 (Hyde Park 4A)	**Units:**	Percent
Lab Code:	E2200952-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 04:35
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.282g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539903	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1043.894	52		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	867.768	43		40-135	1.58	1.204
13C-1,2,3,4,7,8-HxCDD	2000	657.523	33	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	673.565	34	**Y**	40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	546.530	27	**Y**	40-135	1.04	1.067
13C-OCDD	4000	843.396	21	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	915.146	46		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	844.347	42		40-135	1.58	1.158
13C-2,3,4,7,8-PeCDF	2000	1510.061	76		40-135	1.58	1.194
13C-1,2,3,4,7,8-HxCDF	2000	650.584	33	**Y**	40-135	0.51	0.969
13C-1,2,3,6,7,8-HxCDF	2000	623.176	31	**Y**	40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	597.904	30	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	805.477	40		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	432.608	22	**Y**	40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	499.603	25	**Y**	40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	610.459	76		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-007 (Hyde Park 4A)	**Units:**	ng/Kg
Lab Code:	E2200952-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.472**	0.140	0.950	1	1	0.472
1,2,3,7,8-PeCDD	**1.73**	0.175	4.75	1	1	1.73
1,2,3,6,7,8-HxCDD	**21.5**	0.230	4.75	1	0.1	2.15
1,2,3,4,7,8-HxCDD	**4.30**	0.246	4.75	1	0.1	0.430
1,2,3,7,8,9-HxCDD	**13.3**	0.239	4.75	1	0.1	1.33
1,2,3,4,6,7,8-HpCDD	**637**	1.11	4.75	1	0.01	6.37
OCDD	**4730**	2.91	9.50	1	0.0003	1.42
2,3,7,8-TCDF	**10.4**	0.0937	0.950	1	0.1	1.04
1,2,3,7,8-PeCDF	**1.46**	0.258	4.75	1	0.03	0.0438
2,3,4,7,8-PeCDF	**2.80**	0.144	4.75	1	0.3	0.840
1,2,3,6,7,8-HxCDF	**3.17**	0.318	4.75	1	0.1	0.317
1,2,3,7,8,9-HxCDF	**0.718**	0.383	4.75	1	0.1	0.0718
1,2,3,4,7,8-HxCDF	**2.79**	0.319	4.75	1	0.1	0.279
2,3,4,6,7,8-HxCDF	**2.84**	0.269	4.75	1	0.1	0.284
1,2,3,4,6,7,8-HpCDF	**73.0**	0.508	4.75	1	0.01	0.730
1,2,3,4,7,8,9-HpCDF	**2.86**	0.559	4.75	1	0.01	0.0286
OCDF	**175**	0.917	9.50	1	0.0003	0.0525
		Total TEQ				17.6

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-007 (Hyde Park 4A)	**Units:**	Percent
Lab Code:	E2200952-007	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	6.4835g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	51.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:15
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-008 (Hyde Park 4B)	**Units:**	ng/Kg
Lab Code:	E2200952-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 05:24
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539904	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.101	0.848			1
1,2,3,7,8-PeCDD	0.292**J**		0.0866	4.24	1.47	1.001	1
1,2,3,6,7,8-HxCDD	1.31**J**		0.0672	4.24	1.31	1.000	1
1,2,3,4,7,8-HxCDD	0.597**JK**		0.0716	4.24	0.94	1.000	1
1,2,3,7,8,9-HxCDD	1.22**J**		0.0694	4.24	1.10	1.007	1
1,2,3,4,6,7,8-HpCDD	30.8		0.211	4.24	1.06	1.000	1
OCDD	684		1.16	8.48	0.88	1.000	1
2,3,7,8-TCDF	7.57		0.111	0.848	0.70	1.001	1
1,2,3,7,8-PeCDF	3.10**J**		0.199	4.24	1.65	1.001	1
2,3,4,7,8-PeCDF	2.13**J**		0.118	4.24	1.59	1.001	1
1,2,3,6,7,8-HxCDF	1.17**JK**		0.0372	4.24	0.97	1.000	1
1,2,3,7,8,9-HxCDF	0.998**J**		0.0445	4.24	1.39	1.000	1
1,2,3,4,7,8-HxCDF	2.70**J**		0.0381	4.24	1.09	1.000	1
2,3,4,6,7,8-HxCDF	0.829**JK**		0.0358	4.24	1.45	1.000	1
1,2,3,4,6,7,8-HpCDF	6.01		0.0952	4.24	0.94	1.000	1
1,2,3,4,7,8,9-HpCDF	1.49**J**		0.0996	4.24	0.91	1.000	1
OCDF	24.5		0.309	8.48	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:15
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-008 (Hyde Park 4B)	**Units:**	ng/Kg
Lab Code:	E2200952-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 05:24
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539904	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.201**J**		0.101	0.848	0.78		1
Total Penta-Dioxins	0.991**J**		0.0866	4.24	1.41		1
Total Hexa-Dioxins	11.0		0.0694	4.24	1.29		1
Total Hepta-Dioxins	61.9		0.211	4.24	1.07		1
Total Tetra-Furans	25.9		0.111	0.848	0.78		1
Total Penta-Furans	5.53		0.149	4.24	1.41		1
Total Hexa-Furans	6.69		0.0386	4.24	1.33		1
Total Hepta-Furans	14.2		0.0973	4.24	0.94		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:15
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-008 (Hyde Park 4B)	**Units:**	Percent
Lab Code:	E2200952-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 05:24
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.215g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539904	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1329.560	66		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1155.027	58		40-135	1.57	1.204
13C-1,2,3,4,7,8-HxCDD	2000	896.965	45		40-135	1.26	0.990
13C-1,2,3,6,7,8-HxCDD	2000	975.617	49		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	832.667	42		40-135	1.06	1.067
13C-OCDD	4000	1282.869	32	**Y**	40-135	0.88	1.138
13C-2,3,7,8-TCDF	2000	1134.606	57		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1148.788	57		40-135	1.57	1.158
13C-2,3,4,7,8-PeCDF	2000	1913.996	96		40-135	1.56	1.194
13C-1,2,3,4,7,8-HxCDF	2000	944.431	47		40-135	0.51	0.969
13C-1,2,3,6,7,8-HxCDF	2000	910.595	46		40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	898.938	45		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1067.453	53		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	681.131	34	**Y**	40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	794.810	40		40-135	0.43	1.079
37Cl-2,3,7,8-TCDD	800	578.994	72		40-135	NA	1.025

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:15
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-008 (Hyde Park 4B)	**Units:**	ng/Kg
Lab Code:	E2200952-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.101	0.848	1	1	
1,2,3,7,8-PeCDD	**0.292**	0.0866	4.24	1	1	0.292
1,2,3,6,7,8-HxCDD	**1.31**	0.0672	4.24	1	0.1	0.131
1,2,3,4,7,8-HxCDD	**0.597**	0.0716	4.24	1	0.1	0.0597
1,2,3,7,8,9-HxCDD	**1.22**	0.0694	4.24	1	0.1	0.122
1,2,3,4,6,7,8-HpCDD	**30.8**	0.211	4.24	1	0.01	0.308
OCDD	**684**	1.16	8.48	1	0.0003	0.205
2,3,7,8-TCDF	**7.57**	0.111	0.848	1	0.1	0.757
1,2,3,7,8-PeCDF	**3.10**	0.199	4.24	1	0.03	0.0930
2,3,4,7,8-PeCDF	**2.13**	0.118	4.24	1	0.3	0.639
1,2,3,6,7,8-HxCDF	**1.17**	0.0372	4.24	1	0.1	0.117
1,2,3,7,8,9-HxCDF	**0.998**	0.0445	4.24	1	0.1	0.0998
1,2,3,4,7,8-HxCDF	**2.70**	0.0381	4.24	1	0.1	0.270
2,3,4,6,7,8-HxCDF	**0.829**	0.0358	4.24	1	0.1	0.0829
1,2,3,4,6,7,8-HpCDF	**6.01**	0.0952	4.24	1	0.01	0.0601
1,2,3,4,7,8,9-HpCDF	**1.49**	0.0996	4.24	1	0.01	0.0149
OCDF	**24.5**	0.309	8.48	1	0.0003	0.00735
		Total TEQ				3.26

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 09:15
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-008 (Hyde Park 4B)	**Units:**	Percent
Lab Code:	E2200952-008	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	5.1585g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-009 (Hyde Park 5A)	**Units:**	ng/Kg
Lab Code:	E2200952-009	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 06:12
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.221g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539905	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0928	0.851			1
1,2,3,7,8-PeCDD	0.157**J**		0.0882	4.25	1.36	1.001	1
1,2,3,6,7,8-HxCDD	0.129**JK**		0.0584	4.25	3.77	1.000	1
1,2,3,4,7,8-HxCDD	0.159**J**		0.0632	4.25	1.41	1.000	1
1,2,3,7,8,9-HxCDD	0.245**JK**		0.0608	4.25	0.96	1.007	1
1,2,3,4,6,7,8-HpCDD	8.46		0.101	4.25	0.98	1.000	1
OCDD	663		0.653	8.51	0.92	1.000	1
2,3,7,8-TCDF	2.72**K**		0.0833	0.851	0.62	1.001	1
1,2,3,7,8-PeCDF	1.09**J**		0.288	4.25	1.45	1.001	1
2,3,4,7,8-PeCDF	0.638**J**		0.165	4.25	1.32	1.001	1
1,2,3,6,7,8-HxCDF	0.547**J**		0.0710	4.25	1.12	1.000	1
1,2,3,7,8,9-HxCDF	0.328**JK**		0.0827	4.25	0.96	1.000	1
1,2,3,4,7,8-HxCDF	1.15**JK**		0.0722	4.25	0.97	1.000	1
2,3,4,6,7,8-HxCDF	0.424**J**		0.0640	4.25	1.24	1.000	1
1,2,3,4,6,7,8-HpCDF	2.64**J**		0.112	4.25	1.04	1.000	1
1,2,3,4,7,8,9-HpCDF	0.875**J**		0.121	4.25	1.04	1.000	1
OCDF	20.0		0.392	8.51	0.87	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-009 (Hyde Park 5A)	**Units:**	ng/Kg
Lab Code:	E2200952-009	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 06:12
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.221g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539905	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0928	0.851			1
Total Penta-Dioxins	0.516**J**		0.0882	4.25	1.37		1
Total Hexa-Dioxins	0.159**J**		0.0608	4.25	1.41		1
Total Hepta-Dioxins	21.6		0.101	4.25	1.11		1
Total Tetra-Furans	4.61		0.0833	0.851	0.78		1
Total Penta-Furans	2.83**J**		0.107	4.25	1.47		1
Total Hexa-Furans	0.971**J**		0.0717	4.25	1.12		1
Total Hepta-Furans	7.35		0.117	4.25	1.04		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-009 (Hyde Park 5A)	**Units:**	Percent
Lab Code:	E2200952-009	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 06:12
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.221g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539905	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1314.040	66		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	1092.127	55		40-135	1.60	1.204
13C-1,2,3,4,7,8-HxCDD	2000	810.323	41		40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	884.714	44		40-135	1.21	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	722.176	36	**Y**	40-135	1.07	1.067
13C-OCDD	4000	1070.627	27	**Y**	40-135	0.88	1.139
13C-2,3,7,8-TCDF	2000	1123.334	56		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	1082.928	54		40-135	1.57	1.158
13C-2,3,4,7,8-PeCDF	2000	1841.813	92		40-135	1.57	1.194
13C-1,2,3,4,7,8-HxCDF	2000	852.597	43		40-135	0.51	0.969
13C-1,2,3,6,7,8-HxCDF	2000	830.014	42		40-135	0.52	0.972
13C-1,2,3,7,8,9-HxCDF	2000	832.932	42		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1006.558	50		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	582.707	29	**Y**	40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	697.417	35	**Y**	40-135	0.43	1.079
37Cl-2,3,7,8-TCDD	800	585.648	73		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-009 (Hyde Park 5A)	**Units:**	ng/Kg
Lab Code:	E2200952-009	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0928	0.851	1	1	
1,2,3,7,8-PeCDD	**0.157**	0.0882	4.25	1	1	0.157
1,2,3,6,7,8-HxCDD	**0.129**	0.0584	4.25	1	0.1	0.0129
1,2,3,4,7,8-HxCDD	**0.159**	0.0632	4.25	1	0.1	0.0159
1,2,3,7,8,9-HxCDD	**0.245**	0.0608	4.25	1	0.1	0.0245
1,2,3,4,6,7,8-HpCDD	**8.46**	0.101	4.25	1	0.01	0.0846
OCDD	**663**	0.653	8.51	1	0.0003	0.199
2,3,7,8-TCDF	**2.72**	0.0833	0.851	1	0.1	0.272
1,2,3,7,8-PeCDF	**1.09**	0.288	4.25	1	0.03	0.0327
2,3,4,7,8-PeCDF	**0.638**	0.165	4.25	1	0.3	0.191
1,2,3,6,7,8-HxCDF	**0.547**	0.0710	4.25	1	0.1	0.0547
1,2,3,7,8,9-HxCDF	**0.328**	0.0827	4.25	1	0.1	0.0328
1,2,3,4,7,8-HxCDF	**1.15**	0.0722	4.25	1	0.1	0.115
2,3,4,6,7,8-HxCDF	**0.424**	0.0640	4.25	1	0.1	0.0424
1,2,3,4,6,7,8-HpCDF	**2.64**	0.112	4.25	1	0.01	0.0264
1,2,3,4,7,8,9-HpCDF	**0.875**	0.121	4.25	1	0.01	0.00875
OCDF	**20.0**	0.392	8.51	1	0.0003	0.00600
		Total TEQ				1.28

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-009 (Hyde Park 5A)	**Units:**	Percent
Lab Code:	E2200952-009	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	4.7443g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.5		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:50
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-010 (Hyde Park 5B)	**Units:**	ng/Kg
Lab Code:	E2200952-010	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 07:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.159g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539906	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.104	0.853			1
1,2,3,7,8-PeCDD	ND	U	0.106	4.26			1
1,2,3,6,7,8-HxCDD	0.182**J**		0.0306	4.26	1.25	1.000	1
1,2,3,4,7,8-HxCDD	0.0438**JK**		0.0340	4.26	3.48	1.000	1
1,2,3,7,8,9-HxCDD	0.193**J**		0.0321	4.26	1.23	1.007	1
1,2,3,4,6,7,8-HpCDD	2.63**JK**		0.0835	4.26	1.23	1.000	1
OCDD	71.5		0.551	8.53	0.81	1.000	1
2,3,7,8-TCDF	0.552**JK**		0.0482	0.853	0.93	1.001	1
1,2,3,7,8-PeCDF	ND	U	0.158	4.26			1
2,3,4,7,8-PeCDF	0.171**J**		0.0935	4.26	1.73	1.001	1
1,2,3,6,7,8-HxCDF	0.220**J**		0.0289	4.26	1.31	1.000	1
1,2,3,7,8,9-HxCDF	0.172**JK**		0.0383	4.26	1.48	1.000	1
1,2,3,4,7,8-HxCDF	0.281**J**		0.0296	4.26	1.35	1.000	1
2,3,4,6,7,8-HxCDF	0.172**J**		0.0265	4.26	1.41	1.000	1
1,2,3,4,6,7,8-HpCDF	1.70**J**		0.0743	4.26	0.95	1.000	1
1,2,3,4,7,8,9-HpCDF	0.178**JK**		0.0765	4.26	2.19	1.000	1
OCDF	4.60**JK**		0.255	8.53	0.73	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:50
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-010 (Hyde Park 5B)	**Units:**	ng/Kg
Lab Code:	E2200952-010	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 07:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.159g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539906	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.104	0.853			1
Total Penta-Dioxins	ND	U	0.106	4.26			1
Total Hexa-Dioxins	0.993**J**		0.0321	4.26	1.28		1
Total Hepta-Dioxins	ND	U	0.0835	4.26			1
Total Tetra-Furans	0.221**J**		0.0482	0.853	0.69		1
Total Penta-Furans	0.294**J**		0.107	4.26	1.73		1
Total Hexa-Furans	1.10**J**		0.0302	4.26	1.21		1
Total Hepta-Furans	2.67**J**		0.0753	4.26	0.95		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:50
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-010 (Hyde Park 5B)	**Units:**	Percent
Lab Code:	E2200952-010	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/10/22 07:01
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.159g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539906	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539895

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1177.152	59		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	1119.466	56		40-135	1.58	1.205
13C-1,2,3,4,7,8-HxCDD	2000	904.141	45		40-135	1.33	0.991
13C-1,2,3,6,7,8-HxCDD	2000	978.891	49		40-135	1.20	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	818.682	41		40-135	1.04	1.068
13C-OCDD	4000	1196.925	30	**Y**	40-135	0.91	1.139
13C-2,3,7,8-TCDF	2000	945.028	47		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1095.969	55		40-135	1.58	1.158
13C-2,3,4,7,8-PeCDF	2000	1829.490	91		40-135	1.58	1.194
13C-1,2,3,4,7,8-HxCDF	2000	958.173	48		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	942.696	47		40-135	0.50	0.972
13C-1,2,3,7,8,9-HxCDF	2000	889.946	44		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1079.887	54		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	671.416	34	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	797.308	40		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	503.812	63		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:50
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-010 (Hyde Park 5B)	**Units:**	ng/Kg
Lab Code:	E2200952-010	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.104	0.853	1	1	
1,2,3,7,8-PeCDD	ND	0.106	4.26	1	1	
1,2,3,6,7,8-HxCDD	**0.182**	0.0306	4.26	1	0.1	0.0182
1,2,3,4,7,8-HxCDD	**0.0438**	0.0340	4.26	1	0.1	0.00438
1,2,3,7,8,9-HxCDD	**0.193**	0.0321	4.26	1	0.1	0.0193
1,2,3,4,6,7,8-HpCDD	**2.63**	0.0835	4.26	1	0.01	0.0263
OCDD	**71.5**	0.551	8.53	1	0.0003	0.0215
2,3,7,8-TCDF	**0.552**	0.0482	0.853	1	0.1	0.0552
1,2,3,7,8-PeCDF	ND	0.158	4.26	1	0.03	
2,3,4,7,8-PeCDF	**0.171**	0.0935	4.26	1	0.3	0.0513
1,2,3,6,7,8-HxCDF	**0.220**	0.0289	4.26	1	0.1	0.0220
1,2,3,7,8,9-HxCDF	**0.172**	0.0383	4.26	1	0.1	0.0172
1,2,3,4,7,8-HxCDF	**0.281**	0.0296	4.26	1	0.1	0.0281
2,3,4,6,7,8-HxCDF	**0.172**	0.0265	4.26	1	0.1	0.0172
1,2,3,4,6,7,8-HpCDF	**1.70**	0.0743	4.26	1	0.01	0.0170
1,2,3,4,7,8,9-HpCDF	**0.178**	0.0765	4.26	1	0.01	0.00178
OCDF	**4.60**	0.255	8.53	1	0.0003	0.00138
		Total TEQ				0.301

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	09/25/22 10:50
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265649-010 (Hyde Park 5B)	**Units:**	Percent
Lab Code:	E2200952-010	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:34
	4.8905g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200456-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 03:14
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.192g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539595	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.117	0.491			1
1,2,3,7,8-PeCDD	ND	U	0.0419	2.45			1
1,2,3,6,7,8-HxCDD	0.101**JK**		0.0213	2.45	0.89	1.000	1
1,2,3,4,7,8-HxCDD	0.165**JK**		0.0250	2.45	0.86	1.000	1
1,2,3,7,8,9-HxCDD	0.0704**J**		0.0230	2.45	1.31	1.007	1
1,2,3,4,6,7,8-HpCDD	1.17**J**		0.0411	2.45	1.02	1.000	1
OCDD	6.49		0.172	4.91	0.87	1.000	1
2,3,7,8-TCDF	ND	U	0.101	0.491			1
1,2,3,7,8-PeCDF	ND	U	0.0694	2.45			1
2,3,4,7,8-PeCDF	ND	U	0.0721	2.45			1
1,2,3,6,7,8-HxCDF	0.0532**J**		0.0283	2.45	1.12	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0326	2.45			1
1,2,3,4,7,8-HxCDF	ND	U	0.0265	2.45			1
2,3,4,6,7,8-HxCDF	ND	U	0.0239	2.45			1
1,2,3,4,6,7,8-HpCDF	0.380**J**		0.0223	2.45	1.19	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.0281	2.45			1
OCDF	1.66**J**		0.0773	4.91	0.85	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200456-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 03:14
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.192g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539595	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.117	0.491			1
Total Penta-Dioxins	ND	U	0.0419	2.45			1
Total Hexa-Dioxins	0.113**J**		0.0230	2.45	1.09		1
Total Hepta-Dioxins	1.89**J**		0.0411	2.45	0.92		1
Total Tetra-Furans	ND	U	0.101	0.491			1
Total Penta-Furans	ND	U	0.0707	2.45			1
Total Hexa-Furans	0.488**J**		0.0276	2.45	1.42		1
Total Hepta-Furans	0.380**J**		0.0250	2.45	1.19		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200456-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 03:14
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.192g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539595	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1123.196	56		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	1200.168	60		40-135	1.59	1.199
13C-1,2,3,4,7,8-HxCDD	2000	968.227	48		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1138.871	57		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1128.106	56		40-135	1.08	1.067
13C-OCDD	4000	1997.676	50		40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	900.730	45		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1153.851	58		40-135	1.57	1.154
13C-2,3,4,7,8-PeCDF	2000	1091.536	55		40-135	1.59	1.189
13C-1,2,3,4,7,8-HxCDF	2000	1030.467	52		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	934.889	47		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1075.852	54		40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1191.867	60		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	941.528	47		40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	971.647	49		40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	322.278	40		40-135	NA	1.024

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Analyzed:**	10/14/22
Sample Matrix:	Soil	**Date Extracted:**	10/10/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	781379

	Lab Control Sample EQ2200456-02			Duplicate Lab Control Sample EQ2200456-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	86.8	98.3	88	91.2	98.3	93	70-130	5	25
1,2,3,4,7,8-HxCDD	89.3	98.3	91	89.0	98.3	91	70-130	<1	25
1,2,3,6,7,8-HxCDD	81.3	98.3	83	80.8	98.3	82	70-130	<1	25
1,2,3,7,8,9-HxCDD	90.8	98.3	92	90.5	98.3	92	70-130	<1	25
1,2,3,7,8-PeCDD	83.3	98.3	85	83.4	98.3	85	70-130	<1	25
2,3,7,8-TCDD	13.8	19.7	70	13.9	19.7	71	70-130	<1	25
OCDD	184	197	93	189	197	96	70-130	3	25
1,2,3,4,6,7,8-HpCDF	86.3	98.3	88	89.9	98.3	92	70-130	4	25
1,2,3,4,7,8,9-HpCDF	79.0	98.3	80	77.5	98.3	79	70-130	2	25
1,2,3,4,7,8-HxCDF	78.9	98.3	80	78.9	98.3	80	70-130	<1	25
1,2,3,6,7,8-HxCDF	87.3	98.3	89	85.4	98.3	87	70-130	2	25
1,2,3,7,8,9-HxCDF	79.7	98.3	81	86.9	98.3	88	70-130	9	25
1,2,3,7,8-PeCDF	82.4	98.3	84	82.0	98.3	83	70-130	<1	25
2,3,4,6,7,8-HxCDF	71.1	98.3	72	81.7	98.3	83	70-130	14	25
2,3,4,7,8-PeCDF	88.0	98.3	90	87.6	98.3	89	70-130	<1	25
2,3,7,8-TCDF	15.6	19.7	79	16.2	19.7	83	70-130	4	25
OCDF	176	197	90	183	197	93	70-130	4	25

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200456-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 08:53
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.178g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539602	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	13.8		0.241	0.491	0.79	1.001	1
1,2,3,7,8-PeCDD	83.3		0.321	2.46	1.60	1.001	1
1,2,3,6,7,8-HxCDD	81.3		0.527	2.46	1.24	1.000	1
1,2,3,4,7,8-HxCDD	89.3		0.602	2.46	1.24	1.001	1
1,2,3,7,8,9-HxCDD	90.8		0.562	2.46	1.25	1.007	1
1,2,3,4,6,7,8-HpCDD	86.8		0.650	2.46	1.04	1.000	1
OCDD	184		0.701	4.91	0.89	1.000	1
2,3,7,8-TCDF	15.6		0.245	0.491	0.68	1.001	1
1,2,3,7,8-PeCDF	82.4		0.267	2.46	1.49	1.000	1
2,3,4,7,8-PeCDF	88.0		0.266	2.46	1.50	1.000	1
1,2,3,6,7,8-HxCDF	87.3		0.440	2.46	1.18	1.000	1
1,2,3,7,8,9-HxCDF	79.7		0.497	2.46	1.17	1.000	1
1,2,3,4,7,8-HxCDF	78.9		0.408	2.46	1.19	1.000	1
2,3,4,6,7,8-HxCDF	71.1		0.367	2.46	1.21	1.000	1
1,2,3,4,6,7,8-HpCDF	86.3		0.773	2.46	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	79.0		0.904	2.46	0.96	1.000	1
OCDF	176		0.565	4.91	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200456-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 08:53
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.178g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539602	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	13.8		0.241	0.491	0.79		1
Total Penta-Dioxins	83.3		0.321	2.46	1.60		1
Total Hexa-Dioxins	261		0.562	2.46	1.24		1
Total Hepta-Dioxins	88.6		0.650	2.46	0.95		1
Total Tetra-Furans	15.6		0.245	0.491	0.68		1
Total Penta-Furans	172		0.266	2.46	1.33		1
Total Hexa-Furans	321		0.424	2.46	1.15		1
Total Hepta-Furans	180		0.835	2.46	1.00		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200456-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 08:53
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.178g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539602	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1262.127	63		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1620.559	81		40-135	1.59	1.199
13C-1,2,3,4,7,8-HxCDD	2000	1319.778	66		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1527.489	76		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1520.445	76		40-135	1.05	1.067
13C-OCDD	4000	2845.571	71		40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	960.493	48		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1452.633	73		40-135	1.58	1.154
13C-2,3,4,7,8-PeCDF	2000	1407.875	70		40-135	1.56	1.189
13C-1,2,3,4,7,8-HxCDF	2000	1342.453	67		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1184.861	59		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1419.090	71		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1555.612	78		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1237.331	62		40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	1344.850	67		40-135	0.42	1.079
37Cl-2,3,7,8-TCDD	800	376.670	47		40-135	NA	1.024

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200456-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 07:16
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.175g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539600	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	13.9		0.304	0.491	0.76	1.001	1
1,2,3,7,8-PeCDD	83.4		0.788	2.46	1.58	1.000	1
1,2,3,6,7,8-HxCDD	80.8		1.47	2.46	1.24	1.000	1
1,2,3,4,7,8-HxCDD	89.0		1.70	2.46	1.23	1.000	1
1,2,3,7,8,9-HxCDD	90.5		1.58	2.46	1.24	1.007	1
1,2,3,4,6,7,8-HpCDD	91.2		2.14	2.46	1.04	1.000	1
OCDD	189		1.27	4.91	0.88	1.000	1
2,3,7,8-TCDF	16.2		0.339	0.491	0.71	1.001	1
1,2,3,7,8-PeCDF	82.0		0.589	2.46	1.53	1.000	1
2,3,4,7,8-PeCDF	87.6		0.596	2.46	1.51	1.000	1
1,2,3,6,7,8-HxCDF	85.4		1.12	2.46	1.17	1.000	1
1,2,3,7,8,9-HxCDF	86.9		1.29	2.46	1.23	1.000	1
1,2,3,4,7,8-HxCDF	78.9		1.06	2.46	1.20	1.000	1
2,3,4,6,7,8-HxCDF	81.7		0.947	2.46	1.28	1.000	1
1,2,3,4,6,7,8-HpCDF	89.9		4.50	4.50	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	77.5		5.39	5.39	1.01	1.000	1
OCDF	183		2.00	4.91	0.87	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200456-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 07:16
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.175g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539600	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	13.9		0.304	0.491	0.76		1
Total Penta-Dioxins	83.4		0.788	2.46	1.58		1
Total Hexa-Dioxins	260		1.57	2.46	1.23		1
Total Hepta-Dioxins	91.2		2.14	2.46	1.04		1
Total Tetra-Furans	16.2		0.339	0.491	0.71		1
Total Penta-Furans	170		0.592	2.46	1.53		1
Total Hexa-Furans	339		1.10	2.46	1.21		1
Total Hepta-Furans	195		4.93	4.93	1.03		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200952
Project:	3265649	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200456-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	10/14/22 07:16
Prep Method:	Method	**Date Extracted:**	10/10/22
Sample Amount:	10.175g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P539600	**Blank File Name:**	p539595
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P539591

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1282.797	64		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1642.267	82		40-135	1.59	1.200
13C-1,2,3,4,7,8-HxCDD	2000	1338.015	67		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1548.460	77		40-135	1.28	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1562.486	78		40-135	1.08	1.067
13C-OCDD	4000	3002.779	75		40-135	0.87	1.139
13C-2,3,7,8-TCDF	2000	970.304	49		40-135	0.81	0.992
13C-1,2,3,7,8-PeCDF	2000	1479.658	74		40-135	1.57	1.154
13C-2,3,4,7,8-PeCDF	2000	1433.848	72		40-135	1.59	1.189
13C-1,2,3,4,7,8-HxCDF	2000	1353.539	68		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1210.180	61		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1409.820	70		40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1562.753	78		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1258.994	63		40-135	0.44	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	1364.985	68		40-135	0.43	1.079
37Cl-2,3,7,8-TCDD	800	380.842	48		40-135	NA	1.024

ANALYTICAL REPORT

Lab Number:	L2253003
Client:	Normandeau Associates, Inc. 600 Beach Road West Haverstraw, NY 10993
ATTN:	Mike Taylor
Phone:	(603) 637-1193
Project Name:	CHPE HUDSON RIVER
Project Number:	24711.001
Report Date:	10/06/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253003-01	POUGH 1A	SEDIMENT	KINGSTON, NY	09/23/22 11:30	09/27/22
L2253003-02	POUGH 1B	SEDIMENT	KINGSTON, NY	09/23/22 11:45	09/27/22
L2253003-03	POUGH 2A	SEDIMENT	KINGSTON, NY	09/23/22 09:20	09/27/22
L2253003-04	POUGH 2B	SEDIMENT	KINGSTON, NY	09/23/22 09:30	09/27/22
L2253003-05	POUGH 3A	SEDIMENT	KINGSTON, NY	09/23/22 12:30	09/27/22
L2253003-06	POUGH 3B	SEDIMENT	KINGSTON, NY	09/23/22 12:45	09/27/22
L2253003-07	POUGH 4A	SEDIMENT	KINGSTON, NY	09/23/22 13:30	09/27/22
L2253003-08	POUGH 4B	SEDIMENT	KINGSTON, NY	09/23/22 13:45	09/27/22
L2253003-09	POUGH 5A	SEDIMENT	KINGSTON, NY	09/23/22 10:20	09/27/22
L2253003-10	POUGH 5B	SEDIMENT	KINGSTON, NY	09/23/22 10:35	09/27/22
L2253003-11	HYDE PARK 1A	SEDIMENT	KINGSTON, NY	09/25/22 12:30	09/27/22
L2253003-12	HYDE PARK 1B	SEDIMENT	KINGSTON, NY	09/25/22 12:40	09/27/22
L2253003-13	HYDE PARK 2A	SEDIMENT	KINGSTON, NY	09/25/22 11:40	09/27/22
L2253003-14	HYDE PARK 2B	SEDIMENT	KINGSTON, NY	09/25/22 11:45	09/27/22
L2253003-15	HYDE PARK 3A	SEDIMENT	KINGSTON, NY	09/25/22 09:55	09/27/22
L2253003-16	HYDE PARK 3B	SEDIMENT	KINGSTON, NY	09/25/22 10:05	09/27/22
L2253003-17	HYDE PARK 4A	SEDIMENT	KINGSTON, NY	09/25/22 09:05	09/27/22
L2253003-18	HYDE PARK 4B	SEDIMENT	KINGSTON, NY	09/25/22 09:15	09/27/22
L2253003-19	HYDE PARK 5A	SEDIMENT	KINGSTON, NY	09/25/22 10:40	09/27/22
L2253003-20	HYDE PARK 5B	SEDIMENT	KINGSTON, NY	09/25/22 10:50	09/27/22

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/06/22

ORGANICS

PCBS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-01
Client ID: POUGH 1A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 11:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 18:04
Analyst: PS
Percent Solids: 53%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.712	J	ug/kg	0.756	0.378	1
Cl3-BZ#18	1.35		ug/kg	0.756	0.378	1
Cl3-BZ#28	1.67		ug/kg	0.756	0.378	1
Cl4-BZ#44	0.906		ug/kg	0.756	0.378	1
Cl4-BZ#49	1.11		ug/kg	0.756	0.378	1
Cl4-BZ#52	1.74		ug/kg	0.756	0.378	1
Cl4-BZ#66	0.723	J	ug/kg	0.756	0.378	1
Cl5-BZ#87	ND		ug/kg	0.756	0.378	1
Cl5-BZ#101	1.29		ug/kg	0.756	0.378	1
Cl5-BZ#105	ND		ug/kg	0.756	0.378	1
Cl5-BZ#118	0.412	J	ug/kg	0.756	0.378	1
Cl6-BZ#128	ND		ug/kg	0.756	0.378	1
Cl6-BZ#138	0.555	J	ug/kg	0.756	0.378	1
Cl6-BZ#153	0.503	J	ug/kg	0.756	0.378	1
Cl7-BZ#170	ND		ug/kg	0.756	0.378	1
Cl7-BZ#180	ND		ug/kg	0.756	0.378	1
Cl7-BZ#183	ND		ug/kg	0.756	0.378	1
Cl7-BZ#184	ND		ug/kg	0.756	0.378	1
Cl7-BZ#187	ND		ug/kg	0.756	0.378	1
Cl8-BZ#195	ND		ug/kg	0.756	0.378	1
Cl9-BZ#206	0.413	J	ug/kg	0.756	0.378	1
Cl10-BZ#209	0.572	J	ug/kg	0.756	0.378	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	75		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-02
Client ID: POUGH 1B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 18:35
Analyst: PS
Percent Solids: 56%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.704	0.352	1
Cl3-BZ#18	ND		ug/kg	0.704	0.352	1
Cl3-BZ#28	ND		ug/kg	0.704	0.352	1
Cl4-BZ#44	ND		ug/kg	0.704	0.352	1
Cl4-BZ#49	ND		ug/kg	0.704	0.352	1
Cl4-BZ#52	ND		ug/kg	0.704	0.352	1
Cl4-BZ#66	ND		ug/kg	0.704	0.352	1
Cl5-BZ#87	ND		ug/kg	0.704	0.352	1
Cl5-BZ#101	ND		ug/kg	0.704	0.352	1
Cl5-BZ#105	ND		ug/kg	0.704	0.352	1
Cl5-BZ#118	ND		ug/kg	0.704	0.352	1
Cl6-BZ#128	ND		ug/kg	0.704	0.352	1
Cl6-BZ#138	ND		ug/kg	0.704	0.352	1
Cl6-BZ#153	ND		ug/kg	0.704	0.352	1
Cl7-BZ#170	ND		ug/kg	0.704	0.352	1
Cl7-BZ#180	ND		ug/kg	0.704	0.352	1
Cl7-BZ#183	ND		ug/kg	0.704	0.352	1
Cl7-BZ#184	ND		ug/kg	0.704	0.352	1
Cl7-BZ#187	ND		ug/kg	0.704	0.352	1
Cl8-BZ#195	ND		ug/kg	0.704	0.352	1
Cl9-BZ#206	ND		ug/kg	0.704	0.352	1
Cl10-BZ#209	ND		ug/kg	0.704	0.352	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	67		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-03
Client ID: POUGH 2A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 09:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 19:06
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	20.8		ug/kg	0.644	0.322	1
Cl3-BZ#18	38.8		ug/kg	0.644	0.322	1
Cl3-BZ#28	26.7		ug/kg	0.644	0.322	1
Cl4-BZ#44	10.4		ug/kg	0.644	0.322	1
Cl4-BZ#49	32.1		ug/kg	0.644	0.322	1
Cl4-BZ#52	33.5		ug/kg	0.644	0.322	1
Cl4-BZ#66	12.8		ug/kg	0.644	0.322	1
Cl5-BZ#87	2.28		ug/kg	0.644	0.322	1
Cl5-BZ#101	10.2		ug/kg	0.644	0.322	1
Cl5-BZ#105	2.14		ug/kg	0.644	0.322	1
Cl5-BZ#118	6.20		ug/kg	0.644	0.322	1
Cl6-BZ#128	1.16		ug/kg	0.644	0.322	1
Cl6-BZ#138	7.37		ug/kg	0.644	0.322	1
Cl6-BZ#153	3.76		ug/kg	0.644	0.322	1
Cl7-BZ#170	1.16		ug/kg	0.644	0.322	1
Cl7-BZ#180	1.67		ug/kg	0.644	0.322	1
Cl7-BZ#183	0.403	J	ug/kg	0.644	0.322	1
Cl7-BZ#184	ND		ug/kg	0.644	0.322	1
Cl7-BZ#187	1.31		ug/kg	0.644	0.322	1
Cl8-BZ#195	ND		ug/kg	0.644	0.322	1
Cl9-BZ#206	0.828		ug/kg	0.644	0.322	1
Cl10-BZ#209	0.533	J	ug/kg	0.644	0.322	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-04
Client ID: POUGH 2B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 09:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 19:38
Analyst: PS
Percent Solids: 56%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.478	J	ug/kg	0.690	0.345	1
Cl3-BZ#18	0.925		ug/kg	0.690	0.345	1
Cl3-BZ#28	0.495	J	ug/kg	0.690	0.345	1
Cl4-BZ#44	ND		ug/kg	0.690	0.345	1
Cl4-BZ#49	0.881		ug/kg	0.690	0.345	1
Cl4-BZ#52	0.852		ug/kg	0.690	0.345	1
Cl4-BZ#66	ND		ug/kg	0.690	0.345	1
Cl5-BZ#87	ND		ug/kg	0.690	0.345	1
Cl5-BZ#101	ND		ug/kg	0.690	0.345	1
Cl5-BZ#105	ND		ug/kg	0.690	0.345	1
Cl5-BZ#118	ND		ug/kg	0.690	0.345	1
Cl6-BZ#128	ND		ug/kg	0.690	0.345	1
Cl6-BZ#138	ND		ug/kg	0.690	0.345	1
Cl6-BZ#153	ND		ug/kg	0.690	0.345	1
Cl7-BZ#170	ND		ug/kg	0.690	0.345	1
Cl7-BZ#180	ND		ug/kg	0.690	0.345	1
Cl7-BZ#183	ND		ug/kg	0.690	0.345	1
Cl7-BZ#184	ND		ug/kg	0.690	0.345	1
Cl7-BZ#187	ND		ug/kg	0.690	0.345	1
Cl8-BZ#195	ND		ug/kg	0.690	0.345	1
Cl9-BZ#206	ND		ug/kg	0.690	0.345	1
Cl10-BZ#209	ND		ug/kg	0.690	0.345	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	70		50-125
BZ 198	99		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-05
Client ID: POUGH 3A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 20:09
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	3.58		ug/kg	0.683	0.341	1
Cl3-BZ#18	6.76		ug/kg	0.683	0.341	1
Cl3-BZ#28	7.84		ug/kg	0.683	0.341	1
Cl4-BZ#44	3.27		ug/kg	0.683	0.341	1
Cl4-BZ#49	7.51		ug/kg	0.683	0.341	1
Cl4-BZ#52	8.06		ug/kg	0.683	0.341	1
Cl4-BZ#66	3.65		ug/kg	0.683	0.341	1
Cl5-BZ#87	0.709		ug/kg	0.683	0.341	1
Cl5-BZ#101	2.82		ug/kg	0.683	0.341	1
Cl5-BZ#105	0.804		ug/kg	0.683	0.341	1
Cl5-BZ#118	1.65		ug/kg	0.683	0.341	1
Cl6-BZ#128	ND		ug/kg	0.683	0.341	1
Cl6-BZ#138	1.36		ug/kg	0.683	0.341	1
Cl6-BZ#153	0.908		ug/kg	0.683	0.341	1
Cl7-BZ#170	0.351	J	ug/kg	0.683	0.341	1
Cl7-BZ#180	0.377	J	ug/kg	0.683	0.341	1
Cl7-BZ#183	ND		ug/kg	0.683	0.341	1
Cl7-BZ#184	ND		ug/kg	0.683	0.341	1
Cl7-BZ#187	ND		ug/kg	0.683	0.341	1
Cl8-BZ#195	ND		ug/kg	0.683	0.341	1
Cl9-BZ#206	ND		ug/kg	0.683	0.341	1
Cl10-BZ#209	ND		ug/kg	0.683	0.341	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	61		50-125
BZ 198	84		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-06
Client ID: POUGH 3B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 20:40
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.654	0.327	1
Cl3-BZ#18	ND		ug/kg	0.654	0.327	1
Cl3-BZ#28	ND		ug/kg	0.654	0.327	1
Cl4-BZ#44	ND		ug/kg	0.654	0.327	1
Cl4-BZ#49	ND		ug/kg	0.654	0.327	1
Cl4-BZ#52	ND		ug/kg	0.654	0.327	1
Cl4-BZ#66	ND		ug/kg	0.654	0.327	1
Cl5-BZ#87	ND		ug/kg	0.654	0.327	1
Cl5-BZ#101	ND		ug/kg	0.654	0.327	1
Cl5-BZ#105	ND		ug/kg	0.654	0.327	1
Cl5-BZ#118	ND		ug/kg	0.654	0.327	1
Cl6-BZ#128	ND		ug/kg	0.654	0.327	1
Cl6-BZ#138	ND		ug/kg	0.654	0.327	1
Cl6-BZ#153	ND		ug/kg	0.654	0.327	1
Cl7-BZ#170	ND		ug/kg	0.654	0.327	1
Cl7-BZ#180	ND		ug/kg	0.654	0.327	1
Cl7-BZ#183	ND		ug/kg	0.654	0.327	1
Cl7-BZ#184	ND		ug/kg	0.654	0.327	1
Cl7-BZ#187	ND		ug/kg	0.654	0.327	1
Cl8-BZ#195	ND		ug/kg	0.654	0.327	1
Cl9-BZ#206	ND		ug/kg	0.654	0.327	1
Cl10-BZ#209	ND		ug/kg	0.654	0.327	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	66		50-125
BZ 198	91		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-07
Client ID: POUGH 4A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 21:12
Analyst: PS
Percent Solids: 55%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	3.82		ug/kg	0.715	0.358	1
Cl3-BZ#18	3.19		ug/kg	0.715	0.358	1
Cl3-BZ#28	3.46		ug/kg	0.715	0.358	1
Cl4-BZ#44	1.53		ug/kg	0.715	0.358	1
Cl4-BZ#49	2.78		ug/kg	0.715	0.358	1
Cl4-BZ#52	2.84		ug/kg	0.715	0.358	1
Cl4-BZ#66	1.94		ug/kg	0.715	0.358	1
Cl5-BZ#87	0.666	J	ug/kg	0.715	0.358	1
Cl5-BZ#101	1.58		ug/kg	0.715	0.358	1
Cl5-BZ#105	0.552	J	ug/kg	0.715	0.358	1
Cl5-BZ#118	0.987		ug/kg	0.715	0.358	1
Cl6-BZ#128	0.388	J	ug/kg	0.715	0.358	1
Cl6-BZ#138	1.40		ug/kg	0.715	0.358	1
Cl6-BZ#153	0.678	J	ug/kg	0.715	0.358	1
Cl7-BZ#170	ND		ug/kg	0.715	0.358	1
Cl7-BZ#180	ND		ug/kg	0.715	0.358	1
Cl7-BZ#183	ND		ug/kg	0.715	0.358	1
Cl7-BZ#184	ND		ug/kg	0.715	0.358	1
Cl7-BZ#187	ND		ug/kg	0.715	0.358	1
Cl8-BZ#195	ND		ug/kg	0.715	0.358	1
Cl9-BZ#206	ND		ug/kg	0.715	0.358	1
Cl10-BZ#209	ND		ug/kg	0.715	0.358	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	73		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-08
Client ID: POUGH 4B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 21:43
Analyst: PS
Percent Solids: 53%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.714	0.357	1
Cl3-BZ#18	ND		ug/kg	0.714	0.357	1
Cl3-BZ#28	ND		ug/kg	0.714	0.357	1
Cl4-BZ#44	ND		ug/kg	0.714	0.357	1
Cl4-BZ#49	ND		ug/kg	0.714	0.357	1
Cl4-BZ#52	ND		ug/kg	0.714	0.357	1
Cl4-BZ#66	ND		ug/kg	0.714	0.357	1
Cl5-BZ#87	ND		ug/kg	0.714	0.357	1
Cl5-BZ#101	ND		ug/kg	0.714	0.357	1
Cl5-BZ#105	ND		ug/kg	0.714	0.357	1
Cl5-BZ#118	ND		ug/kg	0.714	0.357	1
Cl6-BZ#128	ND		ug/kg	0.714	0.357	1
Cl6-BZ#138	ND		ug/kg	0.714	0.357	1
Cl6-BZ#153	ND		ug/kg	0.714	0.357	1
Cl7-BZ#170	ND		ug/kg	0.714	0.357	1
Cl7-BZ#180	ND		ug/kg	0.714	0.357	1
Cl7-BZ#183	ND		ug/kg	0.714	0.357	1
Cl7-BZ#184	ND		ug/kg	0.714	0.357	1
Cl7-BZ#187	ND		ug/kg	0.714	0.357	1
Cl8-BZ#195	ND		ug/kg	0.714	0.357	1
Cl9-BZ#206	ND		ug/kg	0.714	0.357	1
Cl10-BZ#209	ND		ug/kg	0.714	0.357	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	95		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-09
Client ID: POUGH 5A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 10:20
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 22:14
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	74.8		ug/kg	0.625	0.312	1
Cl3-BZ#18	142		ug/kg	0.625	0.312	1
Cl3-BZ#28	65.4		ug/kg	0.625	0.312	1
Cl4-BZ#44	26.2		ug/kg	0.625	0.312	1
Cl4-BZ#49	85.2		ug/kg	0.625	0.312	1
Cl4-BZ#52	97.6		ug/kg	0.625	0.312	1
Cl4-BZ#66	19.5		ug/kg	0.625	0.312	1
Cl5-BZ#87	3.93		ug/kg	0.625	0.312	1
Cl5-BZ#101	17.6		ug/kg	0.625	0.312	1
Cl5-BZ#105	4.13		ug/kg	0.625	0.312	1
Cl5-BZ#118	9.80		ug/kg	0.625	0.312	1
Cl6-BZ#128	1.70		ug/kg	0.625	0.312	1
Cl6-BZ#138	8.51		ug/kg	0.625	0.312	1
Cl6-BZ#153	5.30		ug/kg	0.625	0.312	1
Cl7-BZ#170	1.58		ug/kg	0.625	0.312	1
Cl7-BZ#180	2.40		ug/kg	0.625	0.312	1
Cl7-BZ#183	0.599	J	ug/kg	0.625	0.312	1
Cl7-BZ#184	ND		ug/kg	0.625	0.312	1
Cl7-BZ#187	2.18		ug/kg	0.625	0.312	1
Cl8-BZ#195	ND		ug/kg	0.625	0.312	1
Cl9-BZ#206	1.14		ug/kg	0.625	0.312	1
Cl10-BZ#209	0.378	J	ug/kg	0.625	0.312	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	77		50-125
BZ 198	83		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-10
Client ID: POUGH 5B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 22:45
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	1.32		ug/kg	0.662	0.331	1
Cl3-BZ#18	2.78		ug/kg	0.662	0.331	1
Cl3-BZ#28	1.23		ug/kg	0.662	0.331	1
Cl4-BZ#44	0.660	J	ug/kg	0.662	0.331	1
Cl4-BZ#49	1.74		ug/kg	0.662	0.331	1
Cl4-BZ#52	1.72		ug/kg	0.662	0.331	1
Cl4-BZ#66	0.368	J	ug/kg	0.662	0.331	1
Cl5-BZ#87	ND		ug/kg	0.662	0.331	1
Cl5-BZ#101	0.383	J	ug/kg	0.662	0.331	1
Cl5-BZ#105	ND		ug/kg	0.662	0.331	1
Cl5-BZ#118	ND		ug/kg	0.662	0.331	1
Cl6-BZ#128	ND		ug/kg	0.662	0.331	1
Cl6-BZ#138	ND		ug/kg	0.662	0.331	1
Cl6-BZ#153	ND		ug/kg	0.662	0.331	1
Cl7-BZ#170	ND		ug/kg	0.662	0.331	1
Cl7-BZ#180	ND		ug/kg	0.662	0.331	1
Cl7-BZ#183	ND		ug/kg	0.662	0.331	1
Cl7-BZ#184	ND		ug/kg	0.662	0.331	1
Cl7-BZ#187	ND		ug/kg	0.662	0.331	1
Cl8-BZ#195	ND		ug/kg	0.662	0.331	1
Cl9-BZ#206	ND		ug/kg	0.662	0.331	1
Cl10-BZ#209	ND		ug/kg	0.662	0.331	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	76		50-125
BZ 198	86		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-11
Client ID: HYDE PARK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 23:17
Analyst: PS
Percent Solids: 59%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	21.2		ug/kg	0.655	0.327	1
Cl3-BZ#18	74.1		ug/kg	0.655	0.327	1
Cl3-BZ#28	82.6		ug/kg	0.655	0.327	1
Cl4-BZ#44	31.1		ug/kg	0.655	0.327	1
Cl4-BZ#49	57.2		ug/kg	0.655	0.327	1
Cl4-BZ#52	67.7		ug/kg	0.655	0.327	1
Cl4-BZ#66	39.6		ug/kg	0.655	0.327	1
Cl5-BZ#87	7.79		ug/kg	0.655	0.327	1
Cl5-BZ#101	35.9		ug/kg	0.655	0.327	1
Cl5-BZ#105	7.51		ug/kg	0.655	0.327	1
Cl5-BZ#118	23.9		ug/kg	0.655	0.327	1
Cl6-BZ#128	6.48		ug/kg	0.655	0.327	1
Cl6-BZ#138	24.6		ug/kg	0.655	0.327	1
Cl6-BZ#153	19.4		ug/kg	0.655	0.327	1
Cl7-BZ#170	4.79		ug/kg	0.655	0.327	1
Cl7-BZ#180	6.24		ug/kg	0.655	0.327	1
Cl7-BZ#183	1.85		ug/kg	0.655	0.327	1
Cl7-BZ#184	ND		ug/kg	0.655	0.327	1
Cl7-BZ#187	4.30		ug/kg	0.655	0.327	1
Cl8-BZ#195	0.789		ug/kg	0.655	0.327	1
Cl9-BZ#206	1.62		ug/kg	0.655	0.327	1
Cl10-BZ#209	1.36		ug/kg	0.655	0.327	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	51		50-125
BZ 198	57		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-12
Client ID: HYDE PARK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 23:48
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.605	0.303	1
Cl3-BZ#18	0.745		ug/kg	0.605	0.303	1
Cl3-BZ#28	0.634		ug/kg	0.605	0.303	1
Cl4-BZ#44	0.353	J	ug/kg	0.605	0.303	1
Cl4-BZ#49	0.741		ug/kg	0.605	0.303	1
Cl4-BZ#52	0.591	J	ug/kg	0.605	0.303	1
Cl4-BZ#66	0.319	J	ug/kg	0.605	0.303	1
Cl5-BZ#87	ND		ug/kg	0.605	0.303	1
Cl5-BZ#101	0.433	J	ug/kg	0.605	0.303	1
Cl5-BZ#105	ND		ug/kg	0.605	0.303	1
Cl5-BZ#118	0.310	J	ug/kg	0.605	0.303	1
Cl6-BZ#128	ND		ug/kg	0.605	0.303	1
Cl6-BZ#138	0.354	J	ug/kg	0.605	0.303	1
Cl6-BZ#153	ND		ug/kg	0.605	0.303	1
Cl7-BZ#170	ND		ug/kg	0.605	0.303	1
Cl7-BZ#180	ND		ug/kg	0.605	0.303	1
Cl7-BZ#183	ND		ug/kg	0.605	0.303	1
Cl7-BZ#184	ND		ug/kg	0.605	0.303	1
Cl7-BZ#187	ND		ug/kg	0.605	0.303	1
Cl8-BZ#195	ND		ug/kg	0.605	0.303	1
Cl9-BZ#206	ND		ug/kg	0.605	0.303	1
Cl10-BZ#209	ND		ug/kg	0.605	0.303	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	59		50-125
BZ 198	61		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-13
Client ID: HYDE PARK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 00:19
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	6.00		ug/kg	0.620	0.310	1
Cl3-BZ#18	9.60		ug/kg	0.620	0.310	1
Cl3-BZ#28	14.2		ug/kg	0.620	0.310	1
Cl4-BZ#44	9.49		ug/kg	0.620	0.310	1
Cl4-BZ#49	12.5		ug/kg	0.620	0.310	1
Cl4-BZ#52	14.7		ug/kg	0.620	0.310	1
Cl4-BZ#66	10.4		ug/kg	0.620	0.310	1
Cl5-BZ#87	3.84		ug/kg	0.620	0.310	1
Cl5-BZ#101	14.8		ug/kg	0.620	0.310	1
Cl5-BZ#105	3.15		ug/kg	0.620	0.310	1
Cl5-BZ#118	9.19		ug/kg	0.620	0.310	1
Cl6-BZ#128	2.86		ug/kg	0.620	0.310	1
Cl6-BZ#138	10.1		ug/kg	0.620	0.310	1
Cl6-BZ#153	7.67		ug/kg	0.620	0.310	1
Cl7-BZ#170	1.95		ug/kg	0.620	0.310	1
Cl7-BZ#180	2.76		ug/kg	0.620	0.310	1
Cl7-BZ#183	0.809		ug/kg	0.620	0.310	1
Cl7-BZ#184	ND		ug/kg	0.620	0.310	1
Cl7-BZ#187	1.82		ug/kg	0.620	0.310	1
Cl8-BZ#195	ND		ug/kg	0.620	0.310	1
Cl9-BZ#206	3.71		ug/kg	0.620	0.310	1
Cl10-BZ#209	6.81		ug/kg	0.620	0.310	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		50-125
BZ 198	76		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-14
Client ID: HYDE PARK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 00:50
Analyst: PS
Percent Solids: 64%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.608	0.304	1
Cl3-BZ#18	ND		ug/kg	0.608	0.304	1
Cl3-BZ#28	ND		ug/kg	0.608	0.304	1
Cl4-BZ#44	ND		ug/kg	0.608	0.304	1
Cl4-BZ#49	ND		ug/kg	0.608	0.304	1
Cl4-BZ#52	ND		ug/kg	0.608	0.304	1
Cl4-BZ#66	ND		ug/kg	0.608	0.304	1
Cl5-BZ#87	ND		ug/kg	0.608	0.304	1
Cl5-BZ#101	ND		ug/kg	0.608	0.304	1
Cl5-BZ#105	ND		ug/kg	0.608	0.304	1
Cl5-BZ#118	ND		ug/kg	0.608	0.304	1
Cl6-BZ#128	ND		ug/kg	0.608	0.304	1
Cl6-BZ#138	ND		ug/kg	0.608	0.304	1
Cl6-BZ#153	ND		ug/kg	0.608	0.304	1
Cl7-BZ#170	ND		ug/kg	0.608	0.304	1
Cl7-BZ#180	ND		ug/kg	0.608	0.304	1
Cl7-BZ#183	ND		ug/kg	0.608	0.304	1
Cl7-BZ#184	ND		ug/kg	0.608	0.304	1
Cl7-BZ#187	ND		ug/kg	0.608	0.304	1
Cl8-BZ#195	ND		ug/kg	0.608	0.304	1
Cl9-BZ#206	ND		ug/kg	0.608	0.304	1
Cl10-BZ#209	ND		ug/kg	0.608	0.304	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	82		50-125
BZ 198	83		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-15
Client ID: HYDE PARK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 01:22
Analyst: PS
Percent Solids: 65%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	12.1		ug/kg	0.600	0.300	1
Cl3-BZ#18	42.4		ug/kg	0.600	0.300	1
Cl3-BZ#28	52.4		ug/kg	0.600	0.300	1
Cl4-BZ#44	20.0		ug/kg	0.600	0.300	1
Cl4-BZ#49	37.8		ug/kg	0.600	0.300	1
Cl4-BZ#52	47.3		ug/kg	0.600	0.300	1
Cl4-BZ#66	25.5		ug/kg	0.600	0.300	1
Cl5-BZ#87	6.02		ug/kg	0.600	0.300	1
Cl5-BZ#101	27.8		ug/kg	0.600	0.300	1
Cl5-BZ#105	5.43		ug/kg	0.600	0.300	1
Cl5-BZ#118	17.7		ug/kg	0.600	0.300	1
Cl6-BZ#128	4.90		ug/kg	0.600	0.300	1
Cl6-BZ#138	19.4		ug/kg	0.600	0.300	1
Cl6-BZ#153	15.1		ug/kg	0.600	0.300	1
Cl7-BZ#170	3.20		ug/kg	0.600	0.300	1
Cl7-BZ#180	4.99		ug/kg	0.600	0.300	1
Cl7-BZ#183	1.51		ug/kg	0.600	0.300	1
Cl7-BZ#184	ND		ug/kg	0.600	0.300	1
Cl7-BZ#187	3.21		ug/kg	0.600	0.300	1
Cl8-BZ#195	0.535	J	ug/kg	0.600	0.300	1
Cl9-BZ#206	3.79		ug/kg	0.600	0.300	1
Cl10-BZ#209	4.47		ug/kg	0.600	0.300	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	58		50-125
BZ 198	64		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-16
Client ID: HYDE PARK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 01:53
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	0.311	J	ug/kg	0.619	0.310	1
Cl3-BZ#18	0.494	J	ug/kg	0.619	0.310	1
Cl3-BZ#28	0.513	J	ug/kg	0.619	0.310	1
Cl4-BZ#44	ND		ug/kg	0.619	0.310	1
Cl4-BZ#49	0.541	J	ug/kg	0.619	0.310	1
Cl4-BZ#52	0.818		ug/kg	0.619	0.310	1
Cl4-BZ#66	ND		ug/kg	0.619	0.310	1
Cl5-BZ#87	ND		ug/kg	0.619	0.310	1
Cl5-BZ#101	0.471	J	ug/kg	0.619	0.310	1
Cl5-BZ#105	ND		ug/kg	0.619	0.310	1
Cl5-BZ#118	ND		ug/kg	0.619	0.310	1
Cl6-BZ#128	ND		ug/kg	0.619	0.310	1
Cl6-BZ#138	0.730		ug/kg	0.619	0.310	1
Cl6-BZ#153	ND		ug/kg	0.619	0.310	1
Cl7-BZ#170	ND		ug/kg	0.619	0.310	1
Cl7-BZ#180	ND		ug/kg	0.619	0.310	1
Cl7-BZ#183	ND		ug/kg	0.619	0.310	1
Cl7-BZ#184	ND		ug/kg	0.619	0.310	1
Cl7-BZ#187	ND		ug/kg	0.619	0.310	1
Cl8-BZ#195	ND		ug/kg	0.619	0.310	1
Cl9-BZ#206	ND		ug/kg	0.619	0.310	1
Cl10-BZ#209	ND		ug/kg	0.619	0.310	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	53		50-125
BZ 198	53		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-17
Client ID: HYDE PARK 4A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 02:24
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	61.4		ug/kg	0.642	0.321	1
Cl3-BZ#18	181		ug/kg	0.642	0.321	1
Cl3-BZ#28	193		ug/kg	0.642	0.321	1
Cl4-BZ#44	55.8		ug/kg	0.642	0.321	1
Cl4-BZ#49	137		ug/kg	0.642	0.321	1
Cl4-BZ#52	152		ug/kg	0.642	0.321	1
Cl4-BZ#66	71.2		ug/kg	0.642	0.321	1
Cl5-BZ#87	11.7		ug/kg	0.642	0.321	1
Cl5-BZ#101	55.0		ug/kg	0.642	0.321	1
Cl5-BZ#105	11.8		ug/kg	0.642	0.321	1
Cl5-BZ#118	36.0		ug/kg	0.642	0.321	1
Cl6-BZ#128	8.67		ug/kg	0.642	0.321	1
Cl6-BZ#138	33.0		ug/kg	0.642	0.321	1
Cl6-BZ#153	26.2		ug/kg	0.642	0.321	1
Cl7-BZ#170	6.82		ug/kg	0.642	0.321	1
Cl7-BZ#180	8.60		ug/kg	0.642	0.321	1
Cl7-BZ#183	2.26		ug/kg	0.642	0.321	1
Cl7-BZ#184	ND		ug/kg	0.642	0.321	1
Cl7-BZ#187	6.84		ug/kg	0.642	0.321	1
Cl8-BZ#195	1.21		ug/kg	0.642	0.321	1
Cl9-BZ#206	2.69		ug/kg	0.642	0.321	1
Cl10-BZ#209	1.71		ug/kg	0.642	0.321	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	69		50-125
BZ 198	67		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-18
Client ID: HYDE PARK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:15
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 02:55
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	1.14		ug/kg	0.598	0.299	1
Cl3-BZ#18	3.35		ug/kg	0.598	0.299	1
Cl3-BZ#28	3.10		ug/kg	0.598	0.299	1
Cl4-BZ#44	1.27		ug/kg	0.598	0.299	1
Cl4-BZ#49	2.79		ug/kg	0.598	0.299	1
Cl4-BZ#52	2.78		ug/kg	0.598	0.299	1
Cl4-BZ#66	1.21		ug/kg	0.598	0.299	1
Cl5-BZ#87	ND		ug/kg	0.598	0.299	1
Cl5-BZ#101	1.27		ug/kg	0.598	0.299	1
Cl5-BZ#105	ND		ug/kg	0.598	0.299	1
Cl5-BZ#118	1.08		ug/kg	0.598	0.299	1
Cl6-BZ#128	ND		ug/kg	0.598	0.299	1
Cl6-BZ#138	0.867		ug/kg	0.598	0.299	1
Cl6-BZ#153	0.610		ug/kg	0.598	0.299	1
Cl7-BZ#170	ND		ug/kg	0.598	0.299	1
Cl7-BZ#180	ND		ug/kg	0.598	0.299	1
Cl7-BZ#183	ND		ug/kg	0.598	0.299	1
Cl7-BZ#184	ND		ug/kg	0.598	0.299	1
Cl7-BZ#187	ND		ug/kg	0.598	0.299	1
Cl8-BZ#195	ND		ug/kg	0.598	0.299	1
Cl9-BZ#206	ND		ug/kg	0.598	0.299	1
Cl10-BZ#209	ND		ug/kg	0.598	0.299	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	72		50-125
BZ 198	71		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-19
Client ID: HYDE PARK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 03:27
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.652	0.326	1
Cl3-BZ#18	ND		ug/kg	0.652	0.326	1
Cl3-BZ#28	ND		ug/kg	0.652	0.326	1
Cl4-BZ#44	ND		ug/kg	0.652	0.326	1
Cl4-BZ#49	ND		ug/kg	0.652	0.326	1
Cl4-BZ#52	ND		ug/kg	0.652	0.326	1
Cl4-BZ#66	ND		ug/kg	0.652	0.326	1
Cl5-BZ#87	ND		ug/kg	0.652	0.326	1
Cl5-BZ#101	ND		ug/kg	0.652	0.326	1
Cl5-BZ#105	ND		ug/kg	0.652	0.326	1
Cl5-BZ#118	ND		ug/kg	0.652	0.326	1
Cl6-BZ#128	ND		ug/kg	0.652	0.326	1
Cl6-BZ#138	ND		ug/kg	0.652	0.326	1
Cl6-BZ#153	ND		ug/kg	0.652	0.326	1
Cl7-BZ#170	ND		ug/kg	0.652	0.326	1
Cl7-BZ#180	ND		ug/kg	0.652	0.326	1
Cl7-BZ#183	ND		ug/kg	0.652	0.326	1
Cl7-BZ#184	ND		ug/kg	0.652	0.326	1
Cl7-BZ#187	ND		ug/kg	0.652	0.326	1
Cl8-BZ#195	ND		ug/kg	0.652	0.326	1
Cl9-BZ#206	ND		ug/kg	0.652	0.326	1
Cl10-BZ#209	ND		ug/kg	0.652	0.326	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	71		50-125
BZ 198	73		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-20
Client ID: HYDE PARK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:50
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 11:29
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/02/22 13:30
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.612	0.306	1
Cl3-BZ#18	ND		ug/kg	0.612	0.306	1
Cl3-BZ#28	ND		ug/kg	0.612	0.306	1
Cl4-BZ#44	ND		ug/kg	0.612	0.306	1
Cl4-BZ#49	ND		ug/kg	0.612	0.306	1
Cl4-BZ#52	ND		ug/kg	0.612	0.306	1
Cl4-BZ#66	ND		ug/kg	0.612	0.306	1
Cl5-BZ#87	ND		ug/kg	0.612	0.306	1
Cl5-BZ#101	ND		ug/kg	0.612	0.306	1
Cl5-BZ#105	ND		ug/kg	0.612	0.306	1
Cl5-BZ#118	ND		ug/kg	0.612	0.306	1
Cl6-BZ#128	ND		ug/kg	0.612	0.306	1
Cl6-BZ#138	ND		ug/kg	0.612	0.306	1
Cl6-BZ#153	ND		ug/kg	0.612	0.306	1
Cl7-BZ#170	ND		ug/kg	0.612	0.306	1
Cl7-BZ#180	ND		ug/kg	0.612	0.306	1
Cl7-BZ#183	ND		ug/kg	0.612	0.306	1
Cl7-BZ#184	ND		ug/kg	0.612	0.306	1
Cl7-BZ#187	ND		ug/kg	0.612	0.306	1
Cl8-BZ#195	ND		ug/kg	0.612	0.306	1
Cl9-BZ#206	ND		ug/kg	0.612	0.306	1
Cl10-BZ#209	ND		ug/kg	0.612	0.306	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	75		50-125
BZ 198	68		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/05/22 16:31
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 10/02/22 09:58
Cleanup Method: EPA 3630
Cleanup Date: 10/03/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-20 Batch: WG1694522-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	66		50-125
BZ 198	107		50-125

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-20 Batch: WG1694522-2 WG1694522-3							
Cl2-BZ#8	82		77		40-140	6		30
Cl3-BZ#18	81		76		40-140	6		30
Cl3-BZ#28	87		82		40-140	6		30
Cl4-BZ#44	89		84		40-140	6		30
Cl4-BZ#49	87		79		40-140	10		30
Cl4-BZ#52	87		83		40-140	5		30
Cl4-BZ#66	89		83		40-140	7		30
Cl5-BZ#87	89		83		40-140	7		30
Cl5-BZ#101	88		82		40-140	7		30
Cl5-BZ#105	92		84		40-140	9		30
Cl5-BZ#118	88		82		40-140	7		30
Cl6-BZ#128	92		86		40-140	7		30
Cl6-BZ#138	90		83		40-140	8		30
Cl6-BZ#153	90		84		40-140	7		30
Cl7-BZ#170	94		88		40-140	7		30
Cl7-BZ#180	86		78		40-140	10		30
Cl7-BZ#183	87		80		40-140	8		30
Cl7-BZ#184	87		80		40-140	8		30
Cl7-BZ#187	89		83		40-140	7		30
Cl8-BZ#195	93		86		40-140	8		30
Cl9-BZ#206	92		85		40-140	8		30
Cl10-BZ#209	95		89		40-140	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-20 Batch: WG1694522-2 WG1694522-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	69		70		50-125
BZ 198	120		107		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-01
Client ID: POUGH 1A
Sample Location: KINGSTON, NY

Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 11:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	52.7		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-02
Client ID: POUGH 1B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-03
Client ID: POUGH 2A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 09:20
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.4		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-04
Client ID: POUGH 2B
Sample Location: KINGSTON, NY

Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 09:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.4		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-05
Client ID: POUGH 3A
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.3		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-06
Client ID: POUGH 3B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 12:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-07
Client ID: POUGH 4A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 13:30
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	55.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-08
Client ID: POUGH 4B
Sample Location: KINGSTON, NY

Date Collected: 09/23/22 13:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	53.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-09
Client ID: POUGH 5A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 10:20
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-10
Client ID: POUGH 5B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/23/22 10:35
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	57.8		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-11
Client ID: HYDE PARK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:30
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.2		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-12
Client ID: HYDE PARK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 12:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.0		%	0.100	0.100	1	-	09/30/22 16:10	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-13
Client ID: HYDE PARK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.7		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-14
Client ID: HYDE PARK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 11:45
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.6		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-15
Client ID: HYDE PARK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:55
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	65.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-16
Client ID: HYDE PARK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:05
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-17
Client ID: HYDE PARK 4A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/25/22 09:05
Date Received: 09/27/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.0		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-18
Client ID: HYDE PARK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 09:15
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.2		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-19
Client ID: HYDE PARK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:40
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.8		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

SAMPLE RESULTS

Lab ID: L2253003-20
Client ID: HYDE PARK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/25/22 10:50
Date Received: 09/27/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.9		%	0.100	0.100	1	-	10/04/22 14:35	121,2540G	VM

Lab Duplicate Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1694176-1 QC Sample: L2253003-03 Client ID: POUGH 2A						
Solids, Total	61.4	61.4	%	0		10
General Chemistry - Mansfield Lab Associated sample(s): 13-20 QC Batch ID: WG1695304-1 QC Sample: L2253636-10 Client ID: DUP Sample						
Solids, Total	91.1	90.0	%	1		10

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253003
Report Date: 10/06/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253003-01A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-02A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-03A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-04A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-05A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-06A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-07A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-08A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-09A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-10A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-11A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-12A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-13A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-14A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-15A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-16A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-17A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-18A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-19A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253003-20A	Glass 250ml/8oz unpreserved	A	NA		6.0	Y	Present/Intact		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253003
Project Number:	24711.001	**Report Date:**	10/06/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd In Lab: 9/27/22

ALPHA Job #: L2253603

Client Information
Client: Normandeau
Address: 400 Old Reading Pike Stowe, PA 19464
Phone: 717-617-7076
Fax:
Email: DNAZARIO@Normandeau.com
These samples have been previously analyzed by Alpha ☐

Project Information
Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001 Task 10
(Use Project name as Project #) ☐
Project Manager: Mike Mettler
ALPHAQuote #: 16943

Turn-Around Time
Standard ☒
Rush (only if pre approved) ☐
Due Date:
# of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 24711.001

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other

Other project specific requirements/comments:
PCB Cong (22) NOAA by 8270 (M)

Please specify Metals or TAL.

ANALYSIS
PCB Congeners 22
NOAA 8270 D-SIM (M)

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Bottles	Sample Specific Comments
2003-01	POUGH 1A	9/23/22	1130	SO1	NAF	1	
-02	1B		1145			1	
-03	2A		0920			1	
-04	2B		0930			1	
-05	3A		1230			1	
-06	3B		1245			1	
-07	4A		1330			1	
-08	4B		1345			1	
-09	5A		1020			1	
-10	5B		1035			1	

Container Type: GL
Preservative: —

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/26/22 1530		9/27/22 10:09
	9-27-22 14:54		9/27/22 1454
	9/27/22 1556		9/27/22 15:56

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr
TEL 508-898-9220
FAX 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL 508-822-9300
FAX 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd In Lab: 9/27/22

ALPHA Job #: L2253053

Client Information
Client: Normandeau
Address: 400 Old Reading Pike Stowe, PA 19464
Phone: 717-617-7076
Fax:
Email: DNazar@Normandeau

Project Information
Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001 Task 10
(Use Project name as Project #)
Project Manager: Mike Methler
ALPHAQuote #: 16943

Turn-Around Time
Standard: X
Rush (only if pre approved):
Due Date:
# of Days:

Deliverables
ASP-A / ASP-B / EQuIS (1 File) / EQuIS (4 File) / Other

Billing Information
X Same as Client Info
PO #: 24711.001

Regulatory Requirement
NY TOGS / NY Part 375 / AWQ Standards / NY CP-51 / NY Restricted Use / Other / NY Unrestricted Use / NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility: NJ / NY / Other

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:
PCB Congeners NOAA 22 8270D-SIM/680 (M)

Please specify Metals or TAL.

ANALYSIS
PCB Congeners NOAA 22 8270D-SIM 1680 (M)

Sample Filtration
Done / Lab to do
Preservation
Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Bottles	Sample Specific Comments
53053-01	Hyde Park 1A	9/25/22	1230	Soil	NAF	1	
-02	1B		1240			1	
-03	2A		1140			1	
-04	2B		1145			1	
-05	3A		0955			1	
-06	3B		1005			1	
-07	4A		0905			1	
-08	4B		0915			1	
-09	5A		1040			1	
-10	5B		1050			1	

Container Type: GL
Preservative: —

Preservative Code: A = None, B = HCl, C = HNO_3, D = H_2SO_4, E = NaOH, F = MeOH, G = $NaHSO_4$, H = $Na_2S_2O_3$, K/E = Zn Ac/NaOH, O = Other

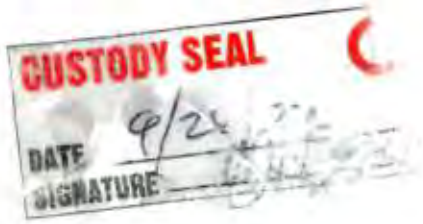
Container Code: P = Plastic, A = Amber Glass, V = Vial, G = Glass, B = Bacteria Cup, C = Cube, O = Other, E = Encore, D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/26/22 1530		9/27/22 1005
	9-27-22 14:59		9/27/22 1454
	9/27/22 1556		9/27/22 18:56

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)


CUSTODY SEAL
DATE 9/24
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Warning: Use only the printed original label for shipping. Using a photocopy of the label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/24/22

Field Team Leader(s): MM
Field Crew: DJN CRB
Station ID #: HYDE PARK 5
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0839 - 0900
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 0-10 NW

FIELD DATA

Water Depth: 70 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HYDE 5 Coring Time: 0853 Penetration Depth: 10 ft. Core Recovery: 9 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HYDE 5
(Lat) N: 41.27140914
Lon / E: 73.95231367
PDOP or SVs: 9

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24727.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/24/22

Field Team Leader(s): MM
Field Crew: DDN CCB
Station ID #: HYDE PARK 4
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0909 - 0930
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 5-10 NW

FIELD DATA

Water Depth: 61 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HYDE 4 Coring Time: 0921 Penetration Depth: 10 ft. Core Recovery: 9' 3" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HYDE4
(Lat) / N: 41.77323133
Lon / E: 73.95245722
PDOP or (SVs): 15

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/24/22

Field Team Leader(s): MM
Field Crew: DJN CLB
Station ID #: HYDE PARK 1
Photos: Y (N) File Name: –

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0941 – 1000
Weather: (Clear) Cloudy Rain Temp –
Wind Conditions (Speed/Direction): 10-15 NW

FIELD DATA

Water Depth: 56 ft. Tide: Ebb (Flood) Low Slack High Slack Other **N/A**
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1
Core ID#: HYDE 1 Coring Time: 0952 Penetration Depth: 10 ft. Core Recovery: 9' 3" ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2
Core ID#: ______ Coring Time: ______ Penetration Depth: ______ ft. Core Recovery: ______ ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3
Core ID#: ______ Coring Time: ______ Penetration Depth: ______ ft. Core Recovery: ______ ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: HYDE 1
(Lat) / N: 41.7750450C
(Lon) / E: 73.9526089 4
PDOP or (SVs): 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

North

Feet of Tubing 10
Preparer's Initial: MM

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/24/22

Field Team Leader(s): MM
Field Crew: DJW CCB
Station ID #: HYDE PARK 3
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1014 - 1032
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 10-15 NW

FIELD DATA

Water Depth: 52 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HYDE 3 Coring Time: 1025 Penetration Depth: 10 ft. Core Recovery: 9' 6" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: HYDE 3
Lat / N: 41.7768613
Lon / E: 73.9527617
PDOP or SVs: 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MJM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/24/22

Field Team Leader(s): MA
Field Crew: DJN CCB
Station ID #: HYDE PARK 2
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MA
Arrival & Departure Times: 1045 - 1115
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 10-15 NW

FIELD DATA

Water Depth: 49 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: HYDE 2 Coring Time: 1057 Penetration Depth: 9' ft. Core Recovery: 8' 9" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MA
File Name: HYDE2
(Lat) / N: 41.778652797
(Lon) / E: 73.952891586
PDOP or (SVs): 12

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MA

North

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/25/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Hyde Park 4	SHEET 1 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 61
START : 0855 END : 0930 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity Cohesive, Silty clay no odor, no sheen	VOA taken at 2 ft. at 0905 Hyde Park 4A 2 x 8oz. jars 1 VOA kit 1 x 16 oz. jar
4					↓	Hyde Park 4B VOA taken at 6.5 ft. at 0915 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/25/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Hyde Park 3	SHEET 2 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 5.2
START : 0948 END : 1030 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Hyde Park 3A VOA taken at 2 ft. at 0955 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
4						Hyde Park 3B VOA taken at 6.5 ft at 1005 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/25/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Hyde Park 5	SHEET 3 OF 5

Soil Boring Log

PROJECT: CHPE Hudson River
LOCATION: Poughkeepsie, NY
ELEVATION:
DRILLING CONTRACTOR: Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED: Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS: 70
START: 1030 END: 1115 LOGGER: DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous throughout very soft to soft very wet to damp GEY 1/3/10Y medium plasticity Cohesive, silty clay no odor, no sheen	Hyde Park 5A VOA taken at 2 ft. at 1040 2 x 16 oz. jar 2 x 8 oz. jar
4					↓	Hyde Park 5B voa taken at 6.5 ft at 1050 2 x 8 oz. jars 1 VOA kit 1 x 16 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date Time

PROJECT NUMBER	BORING NUMBER
24711.001, Task 10	Hyde Park 2 SHEET 1 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River LOCATION : Poughkeepsie, NY
ELEVATION : DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 4/9 START : 1135 END : 1210 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1 3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Hyde Park 2A VOA taken at 2 ft. at 1140 1 x 8 oz. jar 3 x 16 oz. jars
4					↓	Hyde Park 2B VOA taken at 6.5 ft at 1145 2 x 8 oz. jars 2 x 16 oz. jars
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Hyde Park 1	SHEET 5 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River LOCATION : Poughkeepsie, NY

ELEVATION : DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing

WATER LEVELS : 56 START : 1215 END : 1300 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to ~~soft~~ very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Hyde Park 1 A VOA taken at 2 ft. at 1230 2 x 8 oz. jars 2 x 16 oz. jars
4					↓	Hyde Park 1B VOA taken at 6.5 ft at 1240 2 x 8 oz. jars 2 x 16 oz. jars
9						

Sediment Core Photos

CHPE Hudson River
Location – Hyde Park
Project No. 24711.001, Task 10

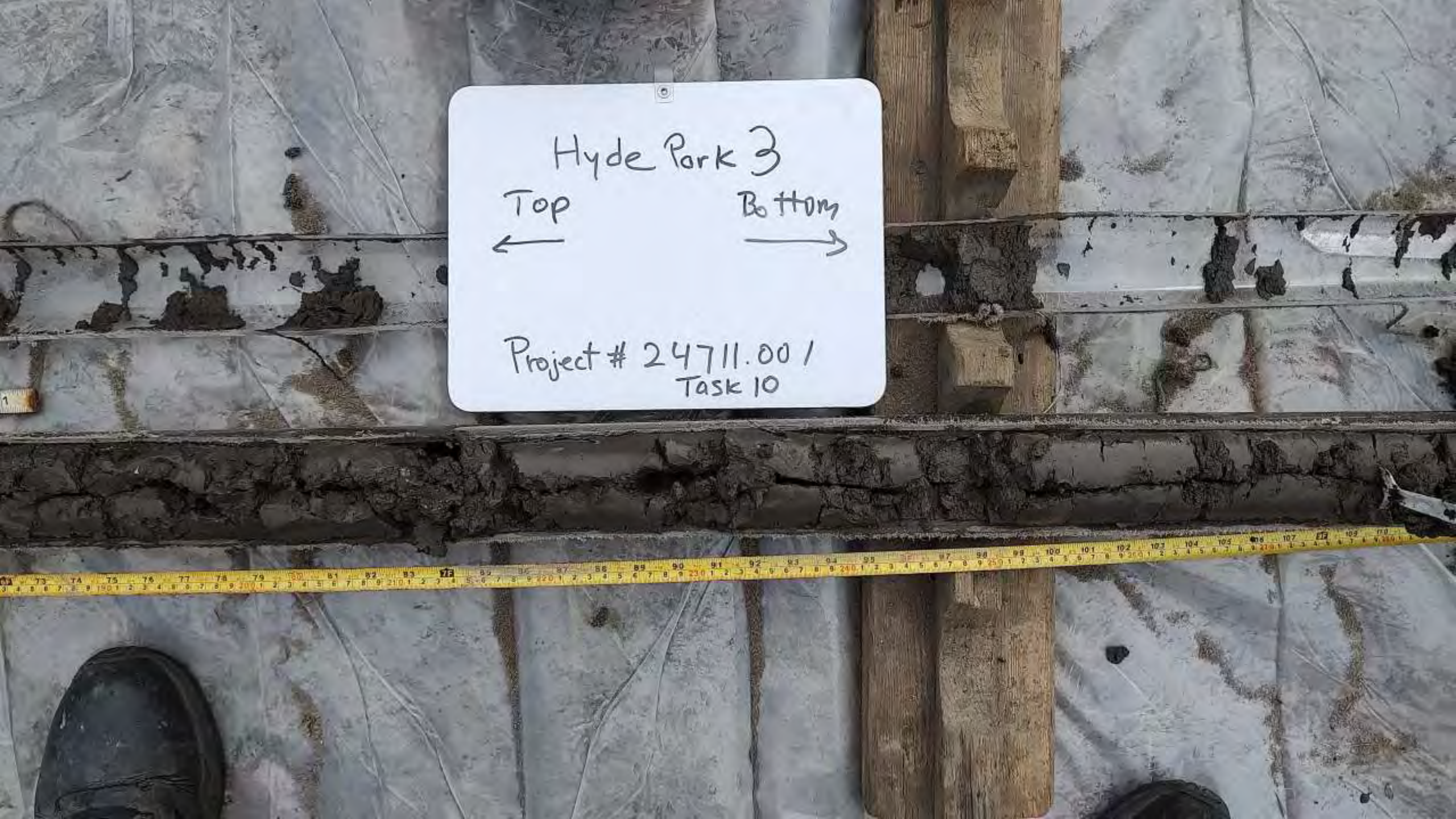

Hyde Park 4
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 4
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 4
Top
Bottom
Project # 24711.00 /
Task 10


Hyde Park 3
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 3
Top
Bottom
Project # 24711.001
Task 10

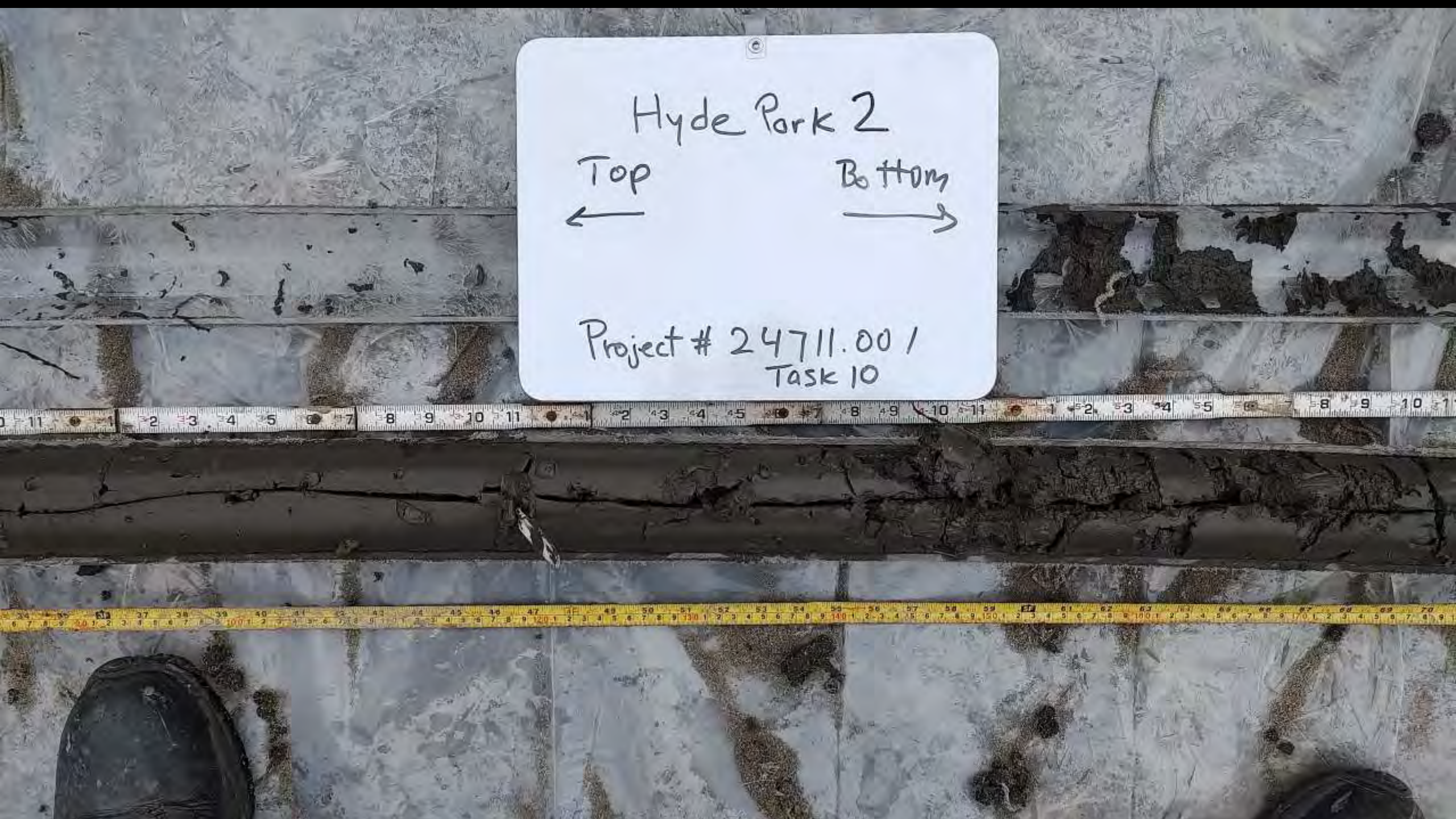

Hyde Park 3
Top
Bottom
Project # 24711.00 /
Task 10


SA
Hyde Park 5
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 5
Top
Bottom
Project # 24711.00 /
Task 10

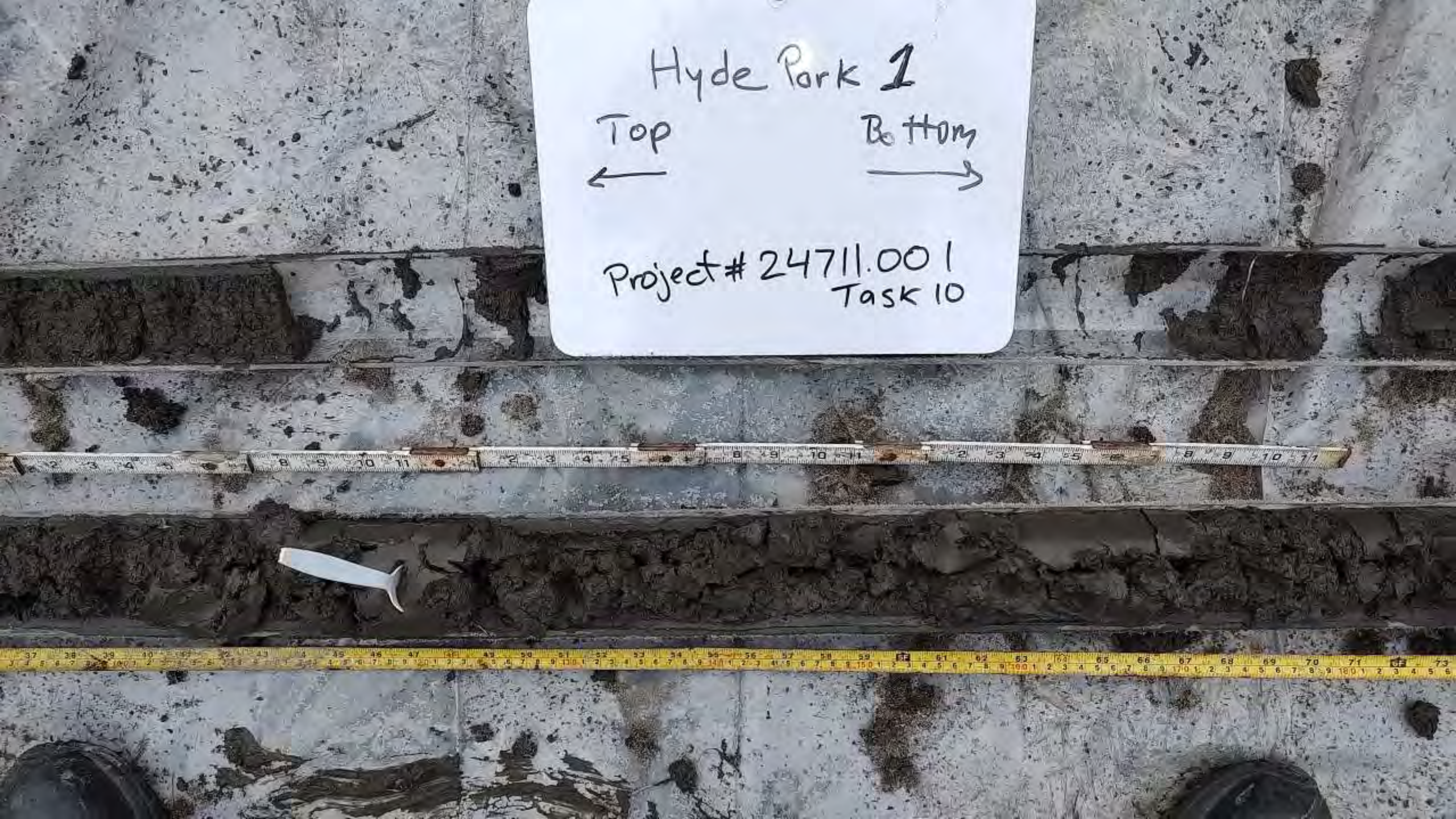

Hyde Park 5
Top
Bottom
Project # 24711.00 /
Task 10


Hyde Park 2
Top
Bottom
Project # 24711.00 /
Task 10


Hyde Park 2
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 2
Top
Bottom
Project # 24711.00 /
Task 10


Hyde Park 1
Top
Bottom
Project # 24711.001.
Task 10


Hyde Park 1
Top
Bottom
Project # 24711.001
Task 10


Hyde Park 1
Top
Bottom
Project # 24711.001
Task 10

Attachment D

Port Ewen Sediment Cores

Laboratory Results

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project 2CHPE Hudson River
Workorder 3265886
Report ID 208277 on 11/21/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 28, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3265886001	Port Ewen 2A	Solid	09/27/2022 10:00	09/28/2022 09:07	CBC	Collected By Client
3265886002	Port Ewen 2B	Solid	09/27/2022 10:10	09/28/2022 09:07	CBC	Collected By Client
3265886003	Port Ewen 3A	Solid	09/27/2022 09:00	09/28/2022 09:07	CBC	Collected By Client
3265886004	Port Ewen 3B	Solid	09/27/2022 09:20	09/28/2022 09:07	CBC	Collected By Client
3265886005	Port Ewen 4A	Solid	09/27/2022 11:00	09/28/2022 09:07	CBC	Collected By Client
3265886006	Port Ewen 4B	Solid	09/27/2022 11:10	09/28/2022 09:07	CBC	Collected By Client
3265886007	Port Ewen 5A	Solid	09/27/2022 11:30	09/28/2022 09:07	CBC	Collected By Client
3265886008	Port Ewen 5B	Solid	09/27/2022 11:40	09/28/2022 09:07	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3265886001	Port Ewen 2A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886002	Port Ewen 2B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886003	Port Ewen 3A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886004	Port Ewen 3B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886005	Port Ewen 4A	**S5**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886006	Port Ewen 4B	**S6**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886007	Port Ewen 5A	**S7**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3265886008	Port Ewen 5B	**S8**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached Dioxin subcontract results from ALS Houston. SLW 11/21/2022
2	The surrogate Tetrachloro-m-xylene for method SW846 8081B was outside of control limits. The % Recovery was reported as 28.9 and the control limits were 30 to 111. This result was reported at a dilution of 5.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 60% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 35% in the bracketing CCV.
5	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 76% in the bracketing CCV.
6	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 34% in the bracketing CCV.
7	The QC sample type MSD for method SW846 8270D was outside the control limits for the analyte Fluorene. The RPD was reported as 16.7 and the upper control limit is 16.

Detected Results Summary

Client Sample ID	Port Ewen 2A	Collected	09/27/2022 10:00
Lab Sample ID	3265886001	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.7	mg/kg	2.9	0.95	SW846 6010D	#
Cadmium, Total	0.30J	mg/kg	0.72	0.24	SW846 6010D	#
Copper, Total	18.8	mg/kg	2.9	0.95	SW846 6010D	#
Lead, Total	24.0	mg/kg	2.9	0.95	SW846 6010D	#
Mercury, Total	0.096	mg/kg	0.077	0.025	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	30.8J	ug/kg	79.1	26.9	SW846 8270D	#
Fluoranthene	40.9J	ug/kg	79.1	26.9	SW846 8270D	#
Pyrene	44.9J	ug/kg	79.1	26.9	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	38.0	%	0.1	0.01	S2540G-11	#
Total Solids	62.0	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 2B	Collected	09/27/2022 10:10
Lab Sample ID	3265886002	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.7	mg/kg	2.7	0.90	SW846 6010D	#
Cadmium, Total	0.24J	mg/kg	0.68	0.23	SW846 6010D	#
Copper, Total	13.0	mg/kg	2.7	0.90	SW846 6010D	#
Lead, Total	9.6	mg/kg	2.7	0.90	SW846 6010D	#
Mercury, Total	0.022J	mg/kg	0.067	0.022	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	33.9	%	0.1	0.01	S2540G-11	#
Total Solids	66.1	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 3A	Collected	09/27/2022 09:00
Lab Sample ID	3265886003	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	9.8	mg/kg	3.1	1.0	SW846 6010D	#
Cadmium, Total	0.31J	mg/kg	0.78	0.26	SW846 6010D	#
Copper, Total	19.5	mg/kg	3.1	1.0	SW846 6010D	#
Lead, Total	27.9	mg/kg	3.1	1.0	SW846 6010D	#
Mercury, Total	0.24	mg/kg	0.073	0.023	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	59.1J	ug/kg	82.0	27.9	SW846 8270D	#
Benzo(a)pyrene	65.9J	ug/kg	82.0	27.9	SW846 8270D	#
Benzo(b)fluoranthene	36.5J	ug/kg	82.0	27.9	SW846 8270D	#
Benzo(g,h,i)perylene	45.2J	ug/kg	82.0	27.9	SW846 8270D	#
Benzo(k)fluoranthene	43.8J	ug/kg	82.0	27.9	SW846 8270D	#
Chrysene	56.8J	ug/kg	82.0	27.9	SW846 8270D	#
Fluoranthene	87.4	ug/kg	82.0	27.9	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	40.7J	ug/kg	82.0	27.9	SW846 8270D	#
Phenanthrene	60.1J	ug/kg	82.0	27.9	SW846 8270D	#
Pyrene	101	ug/kg	82.0	27.9	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.2	%	0.1	0.01	S2540G-11	#
Total Solids	59.8	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 3B	Collected	09/27/2022 09:20
Lab Sample ID	3265886004	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.0	mg/kg	3.1	1.0	SW846 6010D	#
Cadmium, Total	0.26J	mg/kg	0.77	0.26	SW846 6010D	#
Copper, Total	10.7	mg/kg	3.1	1.0	SW846 6010D	#
Lead, Total	8.3	mg/kg	3.1	1.0	SW846 6010D	#
Mercury, Total	0.032J	mg/kg	0.067	0.021	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	37.4	%	0.1	0.01	S2540G-11	#
Total Solids	62.6	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 4A	Collected	09/27/2022 11:00
Lab Sample ID	3265886005	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	13.0	mg/kg	3.3	1.1	SW846 6010D	#
Cadmium, Total	0.36J	mg/kg	0.82	0.27	SW846 6010D	#
Copper, Total	24.7	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	35.9	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.36	mg/kg	0.084	0.027	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	26.2J	ug/kg	75.0	25.5	SW846 8270D	#
Anthracene	44.9J	ug/kg	75.0	25.5	SW846 8270D	#
Benzo(a)anthracene	154	ug/kg	75.0	25.5	SW846 8270D	#
Benzo(a)pyrene	203	ug/kg	75.0	25.5	SW846 8270D	#
Benzo(b)fluoranthene	136	ug/kg	75.0	25.5	SW846 8270D	#
Benzo(g,h,i)perylene	123	ug/kg	75.0	25.5	SW846 8270D	#
Benzo(k)fluoranthene	101	ug/kg	75.0	25.5	SW846 8270D	#
Chrysene	155	ug/kg	75.0	25.5	SW846 8270D	#
Dibenzo(a,h)anthracene	26.1J	ug/kg	75.0	25.5	SW846 8270D	#
Fluoranthene	192	ug/kg	75.0	25.5	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	124	ug/kg	75.0	25.5	SW846 8270D	#
Phenanthrene	107	ug/kg	75.0	25.5	SW846 8270D	#
Pyrene	249	ug/kg	75.0	25.5	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	40.5	%	0.1	0.01	S2540G-11	#
Total Solids	59.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 4B	Collected	09/27/2022 11:10
Lab Sample ID	3265886006	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.8	mg/kg	3.0	0.99	SW846 6010D	#
Cadmium, Total	0.25J	mg/kg	0.74	0.25	SW846 6010D	#
Copper, Total	12.3	mg/kg	3.0	0.99	SW846 6010D	#
Lead, Total	9.7	mg/kg	3.0	0.99	SW846 6010D	#
Mercury, Total	0.042J	mg/kg	0.068	0.022	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	37.4	%	0.1	0.01	S2540G-11	#
Total Solids	62.6	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 5A	Collected	09/27/2022 11:30
Lab Sample ID	3265886007	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	15.7	mg/kg	3.0	1.0	SW846 6010D	#
Cadmium, Total	0.58J	mg/kg	0.76	0.25	SW846 6010D	#
Copper, Total	40.2	mg/kg	3.0	1.0	SW846 6010D	#
Lead, Total	57.1	mg/kg	3.0	1.0	SW846 6010D	#
Mercury, Total	0.42	mg/kg	0.074	0.024	SW846 7471B	#
SEMIVOLATILES						
Acenaphthylene	53.3J	ug/kg	78.1	26.5	SW846 8270D	#
Anthracene	99.3	ug/kg	78.1	26.5	SW846 8270D	#
Benzo(a)anthracene	205	ug/kg	78.1	26.5	SW846 8270D	#
Benzo(a)pyrene	302	ug/kg	78.1	26.5	SW846 8270D	#
Benzo(b)fluoranthene	170	ug/kg	78.1	26.5	SW846 8270D	#
Benzo(g,h,i)perylene	187	ug/kg	78.1	26.5	SW846 8270D	#
Benzo(k)fluoranthene	166	ug/kg	78.1	26.5	SW846 8270D	#
Chrysene	243	ug/kg	78.1	26.5	SW846 8270D	#
Dibenzo(a,h)anthracene	49.3J	ug/kg	78.1	26.5	SW846 8270D	#
Fluoranthene	244	ug/kg	78.1	26.5	SW846 8270D	#
Fluorene	44.9J	ug/kg	78.1	26.5	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	173	ug/kg	78.1	26.5	SW846 8270D	#
Naphthalene	54.1J	ug/kg	78.1	26.5	SW846 8270D	#
Phenanthrene	216	ug/kg	78.1	26.5	SW846 8270D	#
Pyrene	325	ug/kg	78.1	26.5	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	41.8	%	0.1	0.01	S2540G-11	#
Total Solids	58.2	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Port Ewen 5B	Collected	09/27/2022 11:40
Lab Sample ID	3265886008	Lab Receipt	09/28/2022 09:07

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.6	mg/kg	2.9	0.96	SW846 6010D	#
Copper, Total	10.9	mg/kg	2.9	0.96	SW846 6010D	#
Lead, Total	9.2	mg/kg	2.9	0.96	SW846 6010D	#
Mercury, Total	0.061J	mg/kg	0.070	0.022	SW846 7471B	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
VOLATILE ORGANICS						
Toluene	5.8	ug/kg	2.8	0.93	SW846 8260C	#
WET CHEMISTRY						
Moisture	35.7	%	0.1	0.01	S2540G-11	#
Total Solids	64.3	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	Port Ewen 2A	Collected	09/27/2022 10:00
Lab Sample ID	3265886001	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.7	S1	mg/kg	2.9	0.95	SW846 6010D	1	10/19/2022 14:12	A1S	A1
Cadmium, Total	0.30J	J,S1	mg/kg	0.72	0.24	SW846 6010D	1	10/19/2022 14:12	A1S	A1
Copper, Total	18.8	S1	mg/kg	2.9	0.95	SW846 6010D	1	10/19/2022 14:12	A1S	A1
Lead, Total	24.0	S1	mg/kg	2.9	0.95	SW846 6010D	1	10/19/2022 14:12	A1S	A1
Mercury, Total	0.096	S1	mg/kg	0.077	0.025	SW846 7471B	1	10/07/2022 10:28	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S1	ug/kg	13.1	8.5	SW846 8081B	5	10/06/2022 01:36	KJH	A
4,4'-DDE	ND	ND,4,S1	ug/kg	13.1	4.2	SW846 8081B	5	10/06/2022 01:36	KJH	A
4,4'-DDT	ND	ND,5,S1	ug/kg	13.1	3.8	SW846 8081B	5	10/06/2022 01:36	KJH	A
Chlordane	ND	ND,S1	ug/kg	270	45.5	SW846 8081B	5	10/06/2022 01:36	KJH	A
Dieldrin	ND	ND,6,S1	ug/kg	13.1	5.1	SW846 8081B	5	10/06/2022 01:36	KJH	A
Mirex	ND	ND,S1	ug/kg	13.1	4.1	SW846 8081B	5	10/06/2022 01:36	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	33.8%	30 – 135	10/06/2022 01:36	
Tetrachloro-m-xylene	877-09-8	28.9*%	30 – 111	10/06/2022 01:36	2

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Acenaphthylene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Anthracene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Benzo(a)anthracene	30.8J	J,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Benzo(a)pyrene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Benzo(b)fluoranthene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Benzo(g,h,i)perylene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Benzo(k)fluoranthene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Chrysene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Fluoranthene	40.9J	J,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Fluorene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Naphthalene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Phenanthrene	ND	ND,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A
Pyrene	44.9J	J,S1	ug/kg	79.1	26.9	SW846 8270D	1	09/29/2022 07:33	S7M	A

Results

Client Sample ID	Port Ewen 2A	Collected	09/27/2022 10:00
Lab Sample ID	3265886001	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	78.3%	19 – 132	09/29/2022 07:33	
2-Fluorobiphenyl	321-60-8	70.8%	40 – 110	09/29/2022 07:33	
2-Fluorophenol	367-12-4	66.1%	26 – 116	09/29/2022 07:33	
Nitrobenzene-d5	4165-60-0	69.3%	38 – 112	09/29/2022 07:33	
Phenol-d5	4165-62-2	67.2%	35 – 111	09/29/2022 07:33	
Terphenyl-d14	98904-43-9	80.5%	45 – 126	09/29/2022 07:33	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	11/21/2022 08:55	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	2.6	0.65	SW846 8260C	1	09/30/2022 03:01	VLM	C
Ethylbenzene	ND	ND,S1	ug/kg	2.6	0.88	SW846 8260C	1	09/30/2022 03:01	VLM	C
Toluene	ND	ND,S1	ug/kg	2.6	0.87	SW846 8260C	1	09/30/2022 03:01	VLM	C
Total Xylenes	ND	ND,S1	ug/kg	7.8	1.8	SW846 8260C	1	09/30/2022 03:01	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.7%	56 – 124	09/30/2022 03:01	
4-Bromofluorobenzene	460-00-4	99.7%	51 – 128	09/30/2022 03:01	
Dibromofluoromethane	1868-53-7	98.2%	62 – 123	09/30/2022 03:01	
Toluene-d8	2037-26-5	93.6%	59 – 131	09/30/2022 03:01	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	38.0	S1	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	62.0	S1	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 2B	Collected	09/27/2022 10:10
Lab Sample ID	3265886002	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.7	S2	mg/kg	2.7	0.90	SW846 6010D	1	10/19/2022 14:13	A1S	A1
Cadmium, Total	0.24J	J,S2	mg/kg	0.68	0.23	SW846 6010D	1	10/19/2022 14:13	A1S	A1
Copper, Total	13.0	S2	mg/kg	2.7	0.90	SW846 6010D	1	10/19/2022 14:13	A1S	A1
Lead, Total	9.6	S2	mg/kg	2.7	0.90	SW846 6010D	1	10/19/2022 14:13	A1S	A1
Mercury, Total	0.022J	J,S2	mg/kg	0.067	0.022	SW846 7471B	1	10/07/2022 10:31	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S2	ug/kg	12.4	8.0	SW846 8081B	5	10/06/2022 01:47	KJH	A
4,4'-DDE	ND	ND,4,S2	ug/kg	12.4	4.0	SW846 8081B	5	10/06/2022 01:47	KJH	A
4,4'-DDT	ND	ND,5,S2	ug/kg	12.4	3.6	SW846 8081B	5	10/06/2022 01:47	KJH	A
Chlordane	ND	ND,S2	ug/kg	256	43.2	SW846 8081B	5	10/06/2022 01:47	KJH	A
Dieldrin	ND	ND,6,S2	ug/kg	12.4	4.8	SW846 8081B	5	10/06/2022 01:47	KJH	A
Mirex	ND	ND,S2	ug/kg	12.4	3.9	SW846 8081B	5	10/06/2022 01:47	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	43%	30 – 135	10/06/2022 01:47	
Tetrachloro-m-xylene	877-09-8	43%	30 – 111	10/06/2022 01:47	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Acenaphthylene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Anthracene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Benzo(a)anthracene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Benzo(a)pyrene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Benzo(b)fluoranthene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Benzo(g,h,i)perylene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Benzo(k)fluoranthene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Chrysene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Fluoranthene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Fluorene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Naphthalene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Phenanthrene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A
Pyrene	ND	ND,S2	ug/kg	68.7	23.4	SW846 8270D	1	09/29/2022 07:58	S7M	A

Results

Client Sample ID	Port Ewen 2B	Collected	09/27/2022 10:10
Lab Sample ID	3265886002	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	82%	19 – 132	09/29/2022 07:58	
2-Fluorobiphenyl	321-60-8	78.2%	40 – 110	09/29/2022 07:58	
2-Fluorophenol	367-12-4	70.8%	26 – 116	09/29/2022 07:58	
Nitrobenzene-d5	4165-60-0	73.5%	38 – 112	09/29/2022 07:58	
Phenol-d5	4165-62-2	71.2%	35 – 111	09/29/2022 07:58	
Terphenyl-d14	98904-43-9	84.3%	45 – 126	09/29/2022 07:58	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	11/21/2022 08:56	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	2.9	0.73	SW846 8260C	1	09/30/2022 03:26	VLM	C
Ethylbenzene	ND	ND,S2	ug/kg	2.9	1.0	SW846 8260C	1	09/30/2022 03:26	VLM	C
Toluene	ND	ND,S2	ug/kg	2.9	0.98	SW846 8260C	1	09/30/2022 03:26	VLM	C
Total Xylenes	ND	ND,S2	ug/kg	8.8	2.1	SW846 8260C	1	09/30/2022 03:26	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.4%	56 – 124	09/30/2022 03:26	
4-Bromofluorobenzene	460-00-4	102%	51 – 128	09/30/2022 03:26	
Dibromofluoromethane	1868-53-7	101%	62 – 123	09/30/2022 03:26	
Toluene-d8	2037-26-5	95.5%	59 – 131	09/30/2022 03:26	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	33.9	S2	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	66.1	S2	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 3A	Collected	09/27/2022 09:00
Lab Sample ID	3265886003	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	9.8	S3	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:16	A1S	A1
Cadmium, Total	0.31J	J,S3	mg/kg	0.78	0.26	SW846 6010D	1	10/19/2022 14:16	A1S	A1
Copper, Total	19.5	S3	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:16	A1S	A1
Lead, Total	27.9	S3	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:16	A1S	A1
Mercury, Total	0.24	S3	mg/kg	0.073	0.023	SW846 7471B	1	10/07/2022 10:32	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S3	ug/kg	13.5	8.7	SW846 8081B	5	10/06/2022 01:57	KJH	A
4,4'-DDE	ND	ND,4,S3	ug/kg	13.5	4.4	SW846 8081B	5	10/06/2022 01:57	KJH	A
4,4'-DDT	ND	ND,5,S3	ug/kg	13.5	3.9	SW846 8081B	5	10/06/2022 01:57	KJH	A
Chlordane	ND	ND,S3	ug/kg	278	46.8	SW846 8081B	5	10/06/2022 01:57	KJH	A
Dieldrin	ND	ND,6,S3	ug/kg	13.5	5.2	SW846 8081B	5	10/06/2022 01:57	KJH	A
Mirex	ND	ND,S3	ug/kg	13.5	4.2	SW846 8081B	5	10/06/2022 01:57	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	42.6%	30 – 135	10/06/2022 01:57	
Tetrachloro-m-xylene	877-09-8	39.6%	30 – 111	10/06/2022 01:57	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Acenaphthylene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Anthracene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Benzo(a)anthracene	59.1J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Benzo(a)pyrene	65.9J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Benzo(b)fluoranthene	36.5J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Benzo(g,h,i)perylene	45.2J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Benzo(k)fluoranthene	43.8J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Chrysene	56.8J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Fluoranthene	87.4	S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Fluorene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Indeno(1,2,3-cd)pyrene	40.7J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Naphthalene	ND	ND,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Phenanthrene	60.1J	J,S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A
Pyrene	101	S3	ug/kg	82.0	27.9	SW846 8270D	1	09/29/2022 08:22	S7M	A

Results

Client Sample ID	Port Ewen 3A	Collected	09/27/2022 09:00
Lab Sample ID	3265886003	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	77%	19 – 132	09/29/2022 08:22	
2-Fluorobiphenyl	321-60-8	73.4%	40 – 110	09/29/2022 08:22	
2-Fluorophenol	367-12-4	66.4%	26 – 116	09/29/2022 08:22	
Nitrobenzene-d5	4165-60-0	69.4%	38 – 112	09/29/2022 08:22	
Phenol-d5	4165-62-2	68.4%	35 – 111	09/29/2022 08:22	
Terphenyl-d14	98904-43-9	83.2%	45 – 126	09/29/2022 08:22	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	11/21/2022 08:57	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	2.6	0.65	SW846 8260C	1	09/30/2022 00:35	VLM	C
Ethylbenzene	ND	ND,S3	ug/kg	2.6	0.88	SW846 8260C	1	09/30/2022 00:35	VLM	C
Toluene	ND	ND,S3	ug/kg	2.6	0.87	SW846 8260C	1	09/30/2022 00:35	VLM	C
Total Xylenes	ND	ND,S3	ug/kg	7.8	1.8	SW846 8260C	1	09/30/2022 00:35	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.4%	56 – 124	09/30/2022 00:35	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	09/30/2022 00:35	
Dibromofluoromethane	1868-53-7	102%	62 – 123	09/30/2022 00:35	
Toluene-d8	2037-26-5	96.5%	59 – 131	09/30/2022 00:35	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.2	S3	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	59.8	S3	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 3B	Collected	09/27/2022 09:20
Lab Sample ID	3265886004	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.0	S4	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:19	A1S	A1
Cadmium, Total	0.26J	J,S4	mg/kg	0.77	0.26	SW846 6010D	1	10/19/2022 14:19	A1S	A1
Copper, Total	10.7	S4	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:19	A1S	A1
Lead, Total	8.3	S4	mg/kg	3.1	1.0	SW846 6010D	1	10/19/2022 14:19	A1S	A1
Mercury, Total	0.032J	J,S4	mg/kg	0.067	0.021	SW846 7471B	1	10/07/2022 10:33	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S4	ug/kg	13.4	8.7	SW846 8081B	5	10/06/2022 02:08	KJH	A
4,4'-DDE	ND	ND,4,S4	ug/kg	13.4	4.3	SW846 8081B	5	10/06/2022 02:08	KJH	A
4,4'-DDT	ND	ND,5,S4	ug/kg	13.4	3.9	SW846 8081B	5	10/06/2022 02:08	KJH	A
Chlordane	ND	ND,S4	ug/kg	276	46.5	SW846 8081B	5	10/06/2022 02:08	KJH	A
Dieldrin	ND	ND,6,S4	ug/kg	13.4	5.2	SW846 8081B	5	10/06/2022 02:08	KJH	A
Mirex	ND	ND,S4	ug/kg	13.4	4.2	SW846 8081B	5	10/06/2022 02:08	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	35.8%	30 – 135	10/06/2022 02:08	
Tetrachloro-m-xylene	877-09-8	36.4%	30 – 111	10/06/2022 02:08	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Acenaphthylene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Anthracene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Benzo(a)anthracene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Benzo(a)pyrene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Benzo(b)fluoranthene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Benzo(g,h,i)perylene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Benzo(k)fluoranthene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Chrysene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Fluoranthene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Fluorene	ND	ND,7,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Naphthalene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Phenanthrene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A
Pyrene	ND	ND,S4	ug/kg	76.8	26.1	SW846 8270D	1	09/29/2022 08:47	S7M	A

Results

Client Sample ID	Port Ewen 3B	Collected	09/27/2022 09:20
Lab Sample ID	3265886004	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	76.2%	19 – 132	09/29/2022 08:47	
2-Fluorobiphenyl	321-60-8	72%	40 – 110	09/29/2022 08:47	
2-Fluorophenol	367-12-4	62.3%	26 – 116	09/29/2022 08:47	
Nitrobenzene-d5	4165-60-0	67.1%	38 – 112	09/29/2022 08:47	
Phenol-d5	4165-62-2	64.5%	35 – 111	09/29/2022 08:47	
Terphenyl-d14	98904-43-9	83.3%	45 – 126	09/29/2022 08:47	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	11/21/2022 08:57	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	3.2	0.79	SW846 8260C	1	09/30/2022 03:50	VLM	C
Ethylbenzene	ND	ND,S4	ug/kg	3.2	1.1	SW846 8260C	1	09/30/2022 03:50	VLM	C
Toluene	ND	ND,S4	ug/kg	3.2	1.1	SW846 8260C	1	09/30/2022 03:50	VLM	C
Total Xylenes	ND	ND,S4	ug/kg	9.5	2.2	SW846 8260C	1	09/30/2022 03:50	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	90.2%	56 – 124	09/30/2022 03:50	
4-Bromofluorobenzene	460-00-4	99%	51 – 128	09/30/2022 03:50	
Dibromofluoromethane	1868-53-7	99.5%	62 – 123	09/30/2022 03:50	
Toluene-d8	2037-26-5	94.6%	59 – 131	09/30/2022 03:50	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	37.4	S4	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	62.6	S4	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 4A	Collected	09/27/2022 11:00
Lab Sample ID	3265886005	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	13.0	S5	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:20	A1S	A1
Cadmium, Total	0.36J	J,S5	mg/kg	0.82	0.27	SW846 6010D	1	10/19/2022 14:20	A1S	A1
Copper, Total	24.7	S5	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:20	A1S	A1
Lead, Total	35.9	S5	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:20	A1S	A1
Mercury, Total	0.36	S5	mg/kg	0.084	0.027	SW846 7471B	1	10/07/2022 10:35	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S5	ug/kg	13.4	8.7	SW846 8081B	5	10/06/2022 02:18	KJH	A
4,4'-DDE	ND	ND,4,S5	ug/kg	13.4	4.3	SW846 8081B	5	10/06/2022 02:18	KJH	A
4,4'-DDT	ND	ND,5,S5	ug/kg	13.4	3.9	SW846 8081B	5	10/06/2022 02:18	KJH	A
Chlordane	ND	ND,S5	ug/kg	276	46.5	SW846 8081B	5	10/06/2022 02:18	KJH	A
Dieldrin	ND	ND,6,S5	ug/kg	13.4	5.2	SW846 8081B	5	10/06/2022 02:18	KJH	A
Mirex	ND	ND,S5	ug/kg	13.4	4.2	SW846 8081B	5	10/06/2022 02:18	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	41.2%	30 – 135	10/06/2022 02:18	
Tetrachloro-m-xylene	877-09-8	39.4%	30 – 111	10/06/2022 02:18	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Acenaphthylene	26.2J	J,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Anthracene	44.9J	J,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Benzo(a)anthracene	154	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Benzo(a)pyrene	203	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Benzo(b)fluoranthene	136	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Benzo(g,h,i)perylene	123	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Benzo(k)fluoranthene	101	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Chrysene	155	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Dibenzo(a,h)anthracene	26.1J	J,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Fluoranthene	192	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Fluorene	ND	ND,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Indeno(1,2,3-cd)pyrene	124	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Naphthalene	ND	ND,S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Phenanthrene	107	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A
Pyrene	249	S5	ug/kg	75.0	25.5	SW846 8270D	1	09/29/2022 10:01	S7M	A

Results

Client Sample ID	Port Ewen 4A	Collected	09/27/2022 11:00
Lab Sample ID	3265886005	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	83.6%	19 – 132	09/29/2022 10:01	
2-Fluorobiphenyl	321-60-8	70.6%	40 – 110	09/29/2022 10:01	
2-Fluorophenol	367-12-4	66.7%	26 – 116	09/29/2022 10:01	
Nitrobenzene-d5	4165-60-0	70.4%	38 – 112	09/29/2022 10:01	
Phenol-d5	4165-62-2	68%	35 – 111	09/29/2022 10:01	
Terphenyl-d14	98904-43-9	91.8%	45 – 126	09/29/2022 10:01	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S5	ug/L			EPA 1613B	1	11/21/2022 08:57	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S5	ug/kg	4.2	1.0	SW846 8260C	1	09/30/2022 04:14	VLM	C
Ethylbenzene	ND	ND,S5	ug/kg	4.2	1.4	SW846 8260C	1	09/30/2022 04:14	VLM	C
Toluene	ND	ND,S5	ug/kg	4.2	1.4	SW846 8260C	1	09/30/2022 04:14	VLM	C
Total Xylenes	ND	ND,S5	ug/kg	12.5	2.9	SW846 8260C	1	09/30/2022 04:14	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.9%	56 – 124	09/30/2022 04:14	
4-Bromofluorobenzene	460-00-4	104%	51 – 128	09/30/2022 04:14	
Dibromofluoromethane	1868-53-7	98.8%	62 – 123	09/30/2022 04:14	
Toluene-d8	2037-26-5	94.7%	59 – 131	09/30/2022 04:14	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	40.5	S5	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	59.5	S5	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 4B	Collected	09/27/2022 11:10
Lab Sample ID	3265886006	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.8	S6	mg/kg	3.0	0.99	SW846 6010D	1	10/19/2022 14:21	A1S	A1
Cadmium, Total	0.25J	J,S6	mg/kg	0.74	0.25	SW846 6010D	1	10/19/2022 14:21	A1S	A1
Copper, Total	12.3	S6	mg/kg	3.0	0.99	SW846 6010D	1	10/19/2022 14:21	A1S	A1
Lead, Total	9.7	S6	mg/kg	3.0	0.99	SW846 6010D	1	10/19/2022 14:21	A1S	A1
Mercury, Total	0.042J	J,S6	mg/kg	0.068	0.022	SW846 7471B	1	10/07/2022 10:38	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S6	ug/kg	13.3	8.6	SW846 8081B	5	10/06/2022 02:29	KJH	A
4,4'-DDE	ND	ND,4,S6	ug/kg	13.3	4.3	SW846 8081B	5	10/06/2022 02:29	KJH	A
4,4'-DDT	ND	ND,5,S6	ug/kg	13.3	3.8	SW846 8081B	5	10/06/2022 02:29	KJH	A
Chlordane	ND	ND,S6	ug/kg	274	46.2	SW846 8081B	5	10/06/2022 02:29	KJH	A
Dieldrin	ND	ND,6,S6	ug/kg	13.3	5.2	SW846 8081B	5	10/06/2022 02:29	KJH	A
Mirex	ND	ND,S6	ug/kg	13.3	4.1	SW846 8081B	5	10/06/2022 02:29	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	44.1%	30 – 135	10/06/2022 02:29	
Tetrachloro-m-xylene	877-09-8	45.6%	30 – 111	10/06/2022 02:29	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Acenaphthylene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Benzo(a)anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Benzo(a)pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Benzo(b)fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Benzo(g,h,i)perylene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Benzo(k)fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Chrysene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Fluoranthene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Fluorene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Naphthalene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Phenanthrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A
Pyrene	ND	ND,S6	ug/kg	68.8	23.4	SW846 8270D	1	09/29/2022 10:25	S7M	A

Results

Client Sample ID	Port Ewen 4B	Collected	09/27/2022 11:10
Lab Sample ID	3265886006	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	86.3%	19 – 132	09/29/2022 10:25	
2-Fluorobiphenyl	321-60-8	83.1%	40 – 110	09/29/2022 10:25	
2-Fluorophenol	367-12-4	73.3%	26 – 116	09/29/2022 10:25	
Nitrobenzene-d5	4165-60-0	77.7%	38 – 112	09/29/2022 10:25	
Phenol-d5	4165-62-2	73.3%	35 – 111	09/29/2022 10:25	
Terphenyl-d14	98904-43-9	89.6%	45 – 126	09/29/2022 10:25	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S6	ug/L			EPA 1613B	1	11/21/2022 08:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S6	ug/kg	2.8	0.71	SW846 8260C	1	09/30/2022 04:39	VLM	C
Ethylbenzene	ND	ND,S6	ug/kg	2.8	0.97	SW846 8260C	1	09/30/2022 04:39	VLM	C
Toluene	ND	ND,S6	ug/kg	2.8	0.95	SW846 8260C	1	09/30/2022 04:39	VLM	C
Total Xylenes	ND	ND,S6	ug/kg	8.5	2.0	SW846 8260C	1	09/30/2022 04:39	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.1%	56 – 124	09/30/2022 04:39	
4-Bromofluorobenzene	460-00-4	102%	51 – 128	09/30/2022 04:39	
Dibromofluoromethane	1868-53-7	99.7%	62 – 123	09/30/2022 04:39	
Toluene-d8	2037-26-5	93.7%	59 – 131	09/30/2022 04:39	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	37.4	S6	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	62.6	S6	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 5A	Collected	09/27/2022 11:30
Lab Sample ID	3265886007	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	15.7	S7	mg/kg	3.0	1.0	SW846 6010D	1	10/19/2022 14:22	A1S	A1
Cadmium, Total	0.58J	J,S7	mg/kg	0.76	0.25	SW846 6010D	1	10/19/2022 14:22	A1S	A1
Copper, Total	40.2	S7	mg/kg	3.0	1.0	SW846 6010D	1	10/19/2022 14:22	A1S	A1
Lead, Total	57.1	S7	mg/kg	3.0	1.0	SW846 6010D	1	10/19/2022 14:22	A1S	A1
Mercury, Total	0.42	S7	mg/kg	0.074	0.024	SW846 7471B	1	10/07/2022 10:39	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S7	ug/kg	14.3	9.3	SW846 8081B	5	10/05/2022 23:19	KJH	A
4,4'-DDE	ND	ND,4,S7	ug/kg	14.3	4.6	SW846 8081B	5	10/05/2022 23:19	KJH	A
4,4'-DDT	ND	ND,5,S7	ug/kg	14.3	4.1	SW846 8081B	5	10/05/2022 23:19	KJH	A
Chlordane	ND	ND,S7	ug/kg	295	49.7	SW846 8081B	5	10/05/2022 23:19	KJH	A
Dieldrin	ND	ND,6,S7	ug/kg	14.3	5.6	SW846 8081B	5	10/05/2022 23:19	KJH	A
Mirex	ND	ND,S7	ug/kg	14.3	4.5	SW846 8081B	5	10/05/2022 23:19	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	46.9%	30 – 135	10/05/2022 23:19	
Tetrachloro-m-xylene	877-09-8	48.1%	30 – 111	10/05/2022 23:19	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Acenaphthylene	53.3J	J,S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Anthracene	99.3	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Benzo(a)anthracene	205	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Benzo(a)pyrene	302	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Benzo(b)fluoranthene	170	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Benzo(g,h,i)perylene	187	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Benzo(k)fluoranthene	166	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Chrysene	243	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Dibenzo(a,h)anthracene	49.3J	J,S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Fluoranthene	244	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Fluorene	44.9J	J,S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Indeno(1,2,3-cd)pyrene	173	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Naphthalene	54.1J	J,S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Phenanthrene	216	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A
Pyrene	325	S7	ug/kg	78.1	26.5	SW846 8270D	1	09/29/2022 10:50	S7M	A

Results

Client Sample ID	Port Ewen 5A	Collected	09/27/2022 11:30
Lab Sample ID	3265886007	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	87.4%	19 – 132	09/29/2022 10:50	
2-Fluorobiphenyl	321-60-8	82.3%	40 – 110	09/29/2022 10:50	
2-Fluorophenol	367-12-4	74.4%	26 – 116	09/29/2022 10:50	
Nitrobenzene-d5	4165-60-0	78.5%	38 – 112	09/29/2022 10:50	
Phenol-d5	4165-62-2	73.7%	35 – 111	09/29/2022 10:50	
Terphenyl-d14	98904-43-9	93%	45 – 126	09/29/2022 10:50	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S7	ug/L			EPA 1613B	1	11/21/2022 08:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S7	ug/kg	2.6	0.64	SW846 8260C	1	09/30/2022 05:03	VLM	C
Ethylbenzene	ND	ND,S7	ug/kg	2.6	0.87	SW846 8260C	1	09/30/2022 05:03	VLM	C
Toluene	ND	ND,S7	ug/kg	2.6	0.86	SW846 8260C	1	09/30/2022 05:03	VLM	C
Total Xylenes	ND	ND,S7	ug/kg	7.7	1.8	SW846 8260C	1	09/30/2022 05:03	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.7%	56 – 124	09/30/2022 05:03	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	09/30/2022 05:03	
Dibromofluoromethane	1868-53-7	97.5%	62 – 123	09/30/2022 05:03	
Toluene-d8	2037-26-5	95.5%	59 – 131	09/30/2022 05:03	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	41.8	S7	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	58.2	S7	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Results

Client Sample ID	Port Ewen 5B	Collected	09/27/2022 11:40
Lab Sample ID	3265886008	Lab Receipt	09/28/2022 09:07

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.6	S8	mg/kg	2.9	0.96	SW846 6010D	1	10/19/2022 14:23	A1S	A1
Cadmium, Total	ND	ND,S8	mg/kg	0.72	0.24	SW846 6010D	1	10/19/2022 14:23	A1S	A1
Copper, Total	10.9	S8	mg/kg	2.9	0.96	SW846 6010D	1	10/19/2022 14:23	A1S	A1
Lead, Total	9.2	S8	mg/kg	2.9	0.96	SW846 6010D	1	10/19/2022 14:23	A1S	A1
Mercury, Total	0.061J	J,S8	mg/kg	0.070	0.022	SW846 7471B	1	10/07/2022 10:41	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,3,S8	ug/kg	12.6	8.2	SW846 8081B	5	10/06/2022 01:15	KJH	A
4,4'-DDE	ND	ND,4,S8	ug/kg	12.6	4.1	SW846 8081B	5	10/06/2022 01:15	KJH	A
4,4'-DDT	ND	ND,5,S8	ug/kg	12.6	3.6	SW846 8081B	5	10/06/2022 01:15	KJH	A
Chlordane	ND	ND,S8	ug/kg	260	43.8	SW846 8081B	5	10/06/2022 01:15	KJH	A
Dieldrin	ND	ND,6,S8	ug/kg	12.6	4.9	SW846 8081B	5	10/06/2022 01:15	KJH	A
Mirex	ND	ND,S8	ug/kg	12.6	3.9	SW846 8081B	5	10/06/2022 01:15	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	35.8%	30 – 135	10/06/2022 01:15	
Tetrachloro-m-xylene	877-09-8	36.4%	30 – 111	10/06/2022 01:15	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Acenaphthylene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Anthracene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Benzo(a)anthracene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Benzo(a)pyrene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Benzo(b)fluoranthene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Benzo(g,h,i)perylene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Benzo(k)fluoranthene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Chrysene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Fluoranthene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Fluorene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Naphthalene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Phenanthrene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A
Pyrene	ND	ND,S8	ug/kg	74.8	25.4	SW846 8270D	1	09/29/2022 11:15	S7M	A

Results

Client Sample ID	Port Ewen 5B	Collected	09/27/2022 11:40
Lab Sample ID	3265886008	Lab Receipt	09/28/2022 09:07

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	78.7%	19 – 132	09/29/2022 11:15	
2-Fluorobiphenyl	321-60-8	74.4%	40 – 110	09/29/2022 11:15	
2-Fluorophenol	367-12-4	64.7%	26 – 116	09/29/2022 11:15	
Nitrobenzene-d5	4165-60-0	69.2%	38 – 112	09/29/2022 11:15	
Phenol-d5	4165-62-2	67.3%	35 – 111	09/29/2022 11:15	
Terphenyl-d14	98904-43-9	83.3%	45 – 126	09/29/2022 11:15	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S8	ug/L			EPA 1613B	1	11/21/2022 08:58	SUB	F

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S8	ug/kg	2.8	0.70	SW846 8260C	1	09/30/2022 05:27	VLM	C
Ethylbenzene	ND	ND,S8	ug/kg	2.8	0.95	SW846 8260C	1	09/30/2022 05:27	VLM	C
Toluene	5.8	S8	ug/kg	2.8	0.93	SW846 8260C	1	09/30/2022 05:27	VLM	C
Total Xylenes	ND	ND,S8	ug/kg	8.4	2.0	SW846 8260C	1	09/30/2022 05:27	VLM	C

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.7%	56 – 124	09/30/2022 05:27	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	09/30/2022 05:27	
Dibromofluoromethane	1868-53-7	100%	62 – 123	09/30/2022 05:27	
Toluene-d8	2037-26-5	95.5%	59 – 131	09/30/2022 05:27	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	35.7	S8	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A
Total Solids	64.3	S8	%	0.1	0.01	S2540G-11	1	09/29/2022 11:18	NXL	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265886001	Port Ewen 2A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886002	Port Ewen 2B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886003	Port Ewen 3A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886004	Port Ewen 3B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886005	Port Ewen 4A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886006	Port Ewen 4B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3265886007	Port Ewen 5A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3265886008	Port Ewen 5B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3265886001	Port Ewen 2A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 10:00	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886002	Port Ewen 2B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 10:10	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886003	Port Ewen 3A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 09:00	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886004	Port Ewen 3B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 09:20	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886005	Port Ewen 4A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 11:00	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886006	Port Ewen 4B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 11:10	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886007	Port Ewen 5A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 11:30	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975
3265886008	Port Ewen 5B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	884706	09/28/2022 16:55	J1H	SW846 8081B	885104
		SW846 3546	884717	09/28/2022 17:30	J1H	SW846 8270D	885111
		SW846 5035A	885252	09/27/2022 11:40	PDK	SW846 8260C	885253
		N/A	N/A	N/A		S2540G-11	884975

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3265886
Logged By: CXW
PM: SSL

COC #:
ALS Quote #: 904

Client Name: Normandeau Assoc
Address: 400 Old Reading Pike
Stowe, PA 19464

Contact: DON NAZARIO
Phone#: 717-617-7076
Project Name/#: CHPE Hudson River
Bill To: DON NAZARIO
Purchase Order #: 24711.001

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X] -Y DNAZARIO@Normandeau.COM

	Container Type	Container Size	Preservative
	VOA	GL	GL
	40ml	8oz	8oz
	MeOH	UNP	UNP SHC 9/28/22

Unless otherwise Indicated, preservation indicates field filtration on applicable methods

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs, % Moist	PAHs, metals, Pest	Dioxin	
1	Port Ewen 2A	9/27/22	1000		G	S	4	1	1	
2	2B		1010				4	1	1	
3	3A		0900				4	1	1	
4	3B		0920				4	1	1	
5	4A		1100				4	1	1	
6	4B		1110				4	1	1	
7	5A		1130				4	1	1	
8	5B		1140				4	1	1	
9										
10										

Enter Number of Containers Per Sample or Field Results Below.

Circle Sample Collector: ALS Tech / Client ID:

Comments:

Receipt Information
Temp Taken By: SHC Therm ID: 573 WO Temp (°C) 4°C
Receipt Info completed by: SHC
WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree		N	
Adequate Sample Volumes		N	
VOA only: Headspace Present	Y	N	NA
VOA only: Trip Blank	Y	N	NA

Deviations? NO YES
If YES, list below:

NJ ≤ 4 days? Y N
Courier/Tracking #: 7700 4822 0080

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
Rad Screen (uCi)
New Source? Y N
New Source Contact:
SDWA State of Origin?
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/27/22	1500	1	[signature]/Normandeau	2	Fed Ex
9/28/22	0907	3	Fed Ex	4	SHC/ALS
		5		6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 7.19.22

November 18, 2022 Service Request No:E2200953

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3265886

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 01, 2022
For your reference, these analyses have been assigned our service request number **E2200953.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental – Middletown	**Service Request No.:**	E2200953
Project:	3265886	**Date Received:**	10/01/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Eight samples were received for analysis at ALS Environmental in Houston on 10/01/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200474: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

B flags – Method Blanks

The Method Blank EQ2200474-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

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K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - Middletown **Service Request:**E2200953
Project: 3265886

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200953-001	3265886-001 (Port Ewen 2A)	9/27/2022	1000
E2200953-002	3265886-002 (Port Ewen 2B)	9/27/2022	1010
E2200953-003	3265886-003 (Port Ewen 3A)	9/27/2022	0900
E2200953-004	3265886-004 (Port Ewen 3B)	9/27/2022	0920
E2200953-005	3265886-005 (Port Ewen 4A)	9/27/2022	1100
E2200953-006	3265886-006 (Port Ewen 4B)	9/27/2022	1110
E2200953-007	3265886-007 (Port Ewen 5A)	9/27/2022	1130
E2200953-008	3265886-008 (Port Ewen 5B)	9/27/2022	1140

Service Request Summary

Folder #: **E2200953**
Client Name: ALS Environmental - Middletown
Project Name: 3265886
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/01/22
Internal Due Date: 11/7/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3265886
EDD: BASIC_WQC_CASNo

8 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 2C
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200953-001	3265886-001 (Port Ewen 2A)	Soil	09/27/22 1000	II	II
E2200953-002	3265886-002 (Port Ewen 2B)	Soil	09/27/22 1010	II	II
E2200953-003	3265886-003 (Port Ewen 3A)	Soil	09/27/22 0900	II	II
E2200953-004	3265886-004 (Port Ewen 3B)	Soil	09/27/22 0920	II	II
E2200953-005	3265886-005 (Port Ewen 4A)	Soil	09/27/22 1100	II	II
E2200953-006	3265886-006 (Port Ewen 4B)	Soil	09/27/22 1110	II	II
E2200953-007	3265886-007 (Port Ewen 5A)	Soil	09/27/22 1130	II	II
E2200953-008	3265886-008 (Port Ewen 5B)	Soil	09/27/22 1140	II	II

Service Request Summary

Folder #:	**E2200953**
Client Name:	ALS Environmental - Middletown
Project Name:	3265886
Project Number:	

Report To:	Sarah Leung ALS Environmental - Middletown 301 Fulling Mill Road Middletown, PA 17057 USA
Phone Number:	717-944-5541
Cell Number:	
Fax Number:	
E-mail:	sarah.leung@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	CGRANDITS
Date Received:	10/01/22
Internal Due Date:	11/7/2022
QAP:	LAB QAP
Qualifier Set:	HRMS Qualifier Set
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	3265886
EDD:	BASIC_WQC_CASNo

8 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Location: EHRMS-WIC 2C

Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E2200953

DB-5MSUI SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/16/22	LKL	001-006

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/16/22	SL	001-006

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E2200953

DB-5MSUI (SPB-Octyl)

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/18/22	LKL	007, 008

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/18/22	SL	007, 008

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1 of 1

ALS Quote #:

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3265886

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Container Type: G
Container Size: 8oz
Perservative: None

ANALYSES/METHOD REQUESTED: DIOXIN METHOD 8290

Receipt Information (completed by Receiving Lab)

W.O. Temp: 3.6 Therm ID: 104

Courier/Tracking #:

Purchase Order #: 3265886

Project Comments:

Subcontract: ALS Houston

ALS Field Services: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment

Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	DIOXIN METHOD 8290	Sample/COC Comments
1	3265886001 (Port Ewen 2A)	9/27/22	1000	G	S	1	
2	3265886002 (Port Ewen 2B)	9/27/22	1010	G	S	1	
3	3265886003 (Port Ewen 3A)	9/27/22	0900	G	S	1	
4	3265886004 (Port Ewen 3B)	9/27/22	0920	G	S	1	
5	3265886005 (Port Ewen 4A)	9/27/22	1100	G	S	1	
6	3265886006 (Port Ewen 4B)	9/27/22	1110	G	S	1	
7	3265886007 (Port Ewen 5A)	9/27/22	1130	G	S	1	
8	3265886008 (Port Ewen 5B)	9/27/22	1140	G	S	1	
9							
10							

Enter Number of Containers Per Sample or Field Results Below.

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	9/29/22	1600	2 [signature] CORE/TG	10/1/22	0900
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD other

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist JK

Client/Project ALS-MI Thermometer ID IR1

Date/Time Received: 10/11/22 Initials: CA Date/Time Logged in: 10/11/22 Initials CA

1. Method of delivery: ◯ US Mail ☒ Fed Ex ◯ UPS ◯ DHL ◯ Courier ◯ Client
2. Samples received in: ☒ Cooler ◯ Box ◯ Envelope ◯ Other
3. Were custody seals on coolers? ◯ Yes ☒ No
   Were they intact? ◯ Yes ◯ No ☒ N/A
   Were they signed and dated? ◯ Yes ◯ No ☒ N/A
   If yes, how many and where?
4. Packing Material: ◯ Inserts ☒ Baggies ☒ Bubble Wrap ◯ Gel Packs ☒ Wet Ice ◯ Sleeves ◯ Other
5. Foreign or Regulated Soil? ◯ Yes ◯ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 6072		10/11/22	0940	CA	3.0	☒
5857 1123 6083		10/11/22	0940	CA	3.4	☒
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ◯ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ◯ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ◯ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ◯ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ◯ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200953-001	3265886-001 (Port Ewen 2A)	.01	8290A/PCDD PCDF			Soil	10.344g	brown mud
2	E2200953-002	3265886-002 (Port Ewen 2B)	.01	8290A/PCDD PCDF			Soil	10.057g	brown mud
3	E2200953-003	3265886-003 (Port Ewen 3A)	.01	8290A/PCDD PCDF			Soil	10.067g	brown mud
4	E2200953-004	3265886-004 (Port Ewen 3B)	.01	8290A/PCDD PCDF			Soil	10.280g	brown mud
5	E2200953-005	3265886-005 (Port Ewen 4A)	.01	8290A/PCDD PCDF			Soil	10.331g	brown mud
6	E2200953-006	3265886-006 (Port Ewen 4B)	.01	8290A/PCDD PCDF			Soil	10.187g	brown mud
7	E2200953-007	3265886-007 (Port Ewen 5A)	.01	8290A/PCDD PCDF			Soil	10.242g	brown mud
8	E2200953-008	3265886-008 (Port Ewen 5B)	.01	8290A/PCDD PCDF			Soil	10.315g	brown mud
9	E2200954-001	3265452-001 (Pough 3A)	.01	8290A/PCDD PCDF			Soil	10.046g	brown mud
10	E2200954-002	3265452-002 (Pough 3B)	.01	8290A/PCDD PCDF			Soil	10.308g	brown mud
11	E2200954-003	3265452-003 (Pough 4A)	.01	8290A/PCDD PCDF			Soil	10.137g	brown mud
12	E2200954-004	3265452-004 (Pough 4B)	.01	8290A/PCDD PCDF			Soil	10.193g	brown mud
13	E2200954-005	3265452-005 (Pough 5A)	.01	8290A/PCDD PCDF			Soil	10.318g	brown mud
14	E2200954-006	3265452-006 (Pough 5B)	.01	8290A/PCDD PCDF			Soil	10.256g	brown mud
15	E2200955-001	3265451-001	.01	8290A/PCDD PCDF			Soil	10.003g	brown mud
16	E2200955-002	3265451-002	.01	8290A/PCDD PCDF			Soil	10.377g	brown mud
17	E2200955-003	3265451-003	.01	8290A/PCDD PCDF			Soil	10.329g	brown mud
18	E2200955-004	3265451-004	.01	8290A/PCDD PCDF			Soil	10.075g	brown mud
19	EQ2200474-01	MB		8290A/PCDD PCDF			Solid	10.199g	
20	EQ2200474-02	LCS		8290A/PCDD PCDF			Solid	10.137g	
21	EQ2200474-03	DLCS		8290A/PCDD PCDF			Solid	10.135g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200474-02 100.00µL EQ2200474-03 100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200953-001	100.00µL	E2200953-002	100.00µL	E2200953-003	100.00µL	E2200953-004	100.00µL	E2200953-005	100.00µL	E2200953-006	100.00µL
E2200953-007	100.00µL	E2200953-008	100.00µL	E2200954-001	100.00µL	E2200954-002	100.00µL	E2200954-003	100.00µL	E2200954-004	100.00µL
E2200954-005	100.00µL	E2200954-006	100.00µL	E2200955-001	100.00µL	E2200955-002	100.00µL	E2200955-003	100.00µL	E2200955-004	100.00µL
EQ2200474-01	100.00µL	EQ2200474-02	100.00µL	EQ2200474-03	100.00µL						

Name: 1613B Labeled Working Standard Inventory ID 225489 Logbook Ref: NB 10/14/2022 225489 ng/mL Expires On: 04/10/2023

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped

Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

E2200953-001	1,000.00µL	E2200953-002	1,000.00µL	E2200953-003	1,000.00µL	E2200953-004	1,000.00µL	E2200953-005	1,000.00µL	E2200953-006	1,000.00µL
E2200953-007	1,000.00µL	E2200953-008	1,000.00µL	E2200954-001	1,000.00µL	E2200954-002	1,000.00µL	E2200954-003	1,000.00µL	E2200954-004	1,000.00µL
E2200954-005	1,000.00µL	E2200954-006	1,000.00µL	E2200955-001	1,000.00µL	E2200955-002	1,000.00µL	E2200955-003	1,000.00µL	E2200955-004	1,000.00µL
EQ2200474-01	1,000.00µL	EQ2200474-02	1,000.00µL	EQ2200474-03	1,000.00µL						

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:44	Started:	10/20/22 12:00	Started:	10/20/22 13:00	Started:	10/21/22 13:00
Finished:	10/19/22 09:00	Finished:	10/20/22 13:00	Finished:	10/20/22 16:00	Finished:	10/21/22 16:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined

Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0842	0.753			1
1,2,3,7,8-PeCDD	0.108**J**		0.0461	3.76	1.59	1.001	1
1,2,3,6,7,8-HxCDD	0.230**J**		0.0162	3.76	1.17	1.001	1
1,2,3,4,7,8-HxCDD	0.430**BJ**		0.0178	3.76	1.22	1.000	1
1,2,3,7,8,9-HxCDD	0.220**BJ**		0.0171	3.76	1.39	1.007	1
1,2,3,4,6,7,8-HpCDD	8.60		0.136	3.76	1.01	1.000	1
OCDD	83.4		0.560	7.53	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0756	0.753			1
1,2,3,7,8-PeCDF	ND	U	0.0809	3.76			1
2,3,4,7,8-PeCDF	ND	U	0.0827	3.76			1
1,2,3,6,7,8-HxCDF	ND	U	0.0294	3.76			1
1,2,3,7,8,9-HxCDF	0.106**BJK**		0.0336	3.76	0.61	1.000	1
1,2,3,4,7,8-HxCDF	0.0672**BJK**		0.0260	3.76	0.70	1.000	1
2,3,4,6,7,8-HxCDF	0.0583**BJK**		0.0243	3.76	2.18	1.000	1
1,2,3,4,6,7,8-HpCDF	0.442**BJ**		0.0320	3.76	0.94	1.001	1
1,2,3,4,7,8,9-HpCDF	0.112**BJK**		0.0342	3.76	1.24	1.000	1
OCDF	1.57**BJ**		0.0690	7.53	0.87	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0842	0.753			1
Total Penta-Dioxins	0.145**J**		0.0461	3.76	1.59		1
Total Hexa-Dioxins	3.61**J**		0.0169	3.76	1.27		1
Total Hepta-Dioxins	26.0		0.136	3.76	1.02		1
Total Tetra-Furans	ND	U	0.0756	0.753			1
Total Penta-Furans	ND	U	0.0818	3.76			1
Total Hexa-Furans	0.199**J**		0.0281	3.76	1.06		1
Total Hepta-Furans	0.442**J**		0.0330	3.76	0.94		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	Percent
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1655.251	83		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	1644.592	82		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1360.683	68		40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1526.470	76		40-135	1.22	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1583.921	79		40-135	1.05	1.068
13C-OCDD	4000	2493.995	62		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1405.219	70		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1580.003	79		40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	1517.388	76		40-135	1.60	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1465.684	73		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1287.228	64		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1424.868	71		40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1647.136	82		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1254.424	63		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1496.104	75		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	507.810	63		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0842	0.753	1	1	
1,2,3,7,8-PeCDD	**0.108**	0.0461	3.76	1	1	0.108
1,2,3,6,7,8-HxCDD	**0.230**	0.0162	3.76	1	0.1	0.0230
1,2,3,4,7,8-HxCDD	**0.430**	0.0178	3.76	1	0.1	0.0430
1,2,3,7,8,9-HxCDD	**0.220**	0.0171	3.76	1	0.1	0.0220
1,2,3,4,6,7,8-HpCDD	**8.60**	0.136	3.76	1	0.01	0.0860
OCDD	**83.4**	0.560	7.53	1	0.0003	0.0250
2,3,7,8-TCDF	ND	0.0756	0.753	1	0.1	
1,2,3,7,8-PeCDF	ND	0.0809	3.76	1	0.03	
2,3,4,7,8-PeCDF	ND	0.0827	3.76	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.0294	3.76	1	0.1	
1,2,3,7,8,9-HxCDF	**0.106**	0.0336	3.76	1	0.1	0.0106
1,2,3,4,7,8-HxCDF	**0.0672**	0.0260	3.76	1	0.1	0.00672
2,3,4,6,7,8-HxCDF	**0.0583**	0.0243	3.76	1	0.1	0.00583
1,2,3,4,6,7,8-HpCDF	**0.442**	0.0320	3.76	1	0.01	0.00442
1,2,3,4,7,8,9-HpCDF	**0.112**	0.0342	3.76	1	0.01	0.00112
OCDF	**1.57**	0.0690	7.53	1	0.0003	0.000471
		Total TEQ				0.336

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	Percent
Lab Code:	E2200953-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.1262g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	64.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.173	0.768			1
1,2,3,7,8-PeCDD	0.408**J**		0.105	3.84	1.44	1.001	1
1,2,3,6,7,8-HxCDD	0.454**J**		0.0429	3.84	1.19	1.001	1
1,2,3,4,7,8-HxCDD	0.385**BJ**		0.0475	3.84	1.20	1.000	1
1,2,3,7,8,9-HxCDD	0.422**J**		0.0451	3.84	1.12	1.007	1
1,2,3,4,6,7,8-HpCDD	6.37**K**		0.00969	3.84	0.87	1.000	1
OCDD	101		0.848	7.68	0.93	1.000	1
2,3,7,8-TCDF	0.215**JK**		0.162	0.768	0.98	1.001	1
1,2,3,7,8-PeCDF	0.633**J**		0.305	3.84	1.35	1.000	1
2,3,4,7,8-PeCDF	ND	U	0.290	3.84			1
1,2,3,6,7,8-HxCDF	0.936**JK**		0.0916	3.84	0.93	1.000	1
1,2,3,7,8,9-HxCDF	0.311**J**		0.109	3.84	1.11	1.001	1
1,2,3,4,7,8-HxCDF	1.33**J**		0.0841	3.84	1.10	1.000	1
2,3,4,6,7,8-HxCDF	0.636**J**		0.0707	3.84	1.30	1.000	1
1,2,3,4,6,7,8-HpCDF	4.19		0.105	3.84	0.88	1.000	1
1,2,3,4,7,8,9-HpCDF	0.496**BJ**		0.111	3.84	1.18	1.000	1
OCDF	4.10**J**		0.176	7.68	0.76	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.173	0.768			1
Total Penta-Dioxins	1.28**J**		0.105	3.84	1.38		1
Total Hexa-Dioxins	3.00**J**		0.0451	3.84	1.41		1
Total Hepta-Dioxins	ND	U	0.00969	3.84			1
Total Tetra-Furans	0.488**J**		0.162	0.768	0.67		1
Total Penta-Furans	1.98**J**		0.0963	3.84	1.35		1
Total Hexa-Furans	6.36		0.0869	3.84	1.18		1
Total Hepta-Furans	3.16**J**		0.108	3.84	0.96		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	Percent
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	707.971	35	**Y**	40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	675.684	34	**Y**	40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	560.210	28	**Y**	40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	627.909	31	**Y**	40-135	1.22	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	604.471	30	**Y**	40-135	1.07	1.068
13C-OCDD	4000	873.978	22	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	624.723	31	**Y**	40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	632.767	32	**Y**	40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	653.957	33	**Y**	40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	574.779	29	**Y**	40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	518.344	26	**Y**	40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	550.326	28	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	715.087	36	**Y**	40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	459.654	23	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	561.260	28	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	361.747	45		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.173	0.768	1	1	
1,2,3,7,8-PeCDD	**0.408**	0.105	3.84	1	1	0.408
1,2,3,6,7,8-HxCDD	**0.454**	0.0429	3.84	1	0.1	0.0454
1,2,3,4,7,8-HxCDD	**0.385**	0.0475	3.84	1	0.1	0.0385
1,2,3,7,8,9-HxCDD	**0.422**	0.0451	3.84	1	0.1	0.0422
1,2,3,4,6,7,8-HpCDD	**6.37**	0.00969	3.84	1	0.01	0.0637
OCDD	**101**	0.848	7.68	1	0.0003	0.0303
2,3,7,8-TCDF	**0.215**	0.162	0.768	1	0.1	0.0215
1,2,3,7,8-PeCDF	**0.633**	0.305	3.84	1	0.03	0.0190
2,3,4,7,8-PeCDF	ND	0.290	3.84	1	0.3	
1,2,3,6,7,8-HxCDF	**0.936**	0.0916	3.84	1	0.1	0.0936
1,2,3,7,8,9-HxCDF	**0.311**	0.109	3.84	1	0.1	0.0311
1,2,3,4,7,8-HxCDF	**1.33**	0.0841	3.84	1	0.1	0.133
2,3,4,6,7,8-HxCDF	**0.636**	0.0707	3.84	1	0.1	0.0636
1,2,3,4,6,7,8-HpCDF	**4.19**	0.105	3.84	1	0.01	0.0419
1,2,3,4,7,8,9-HpCDF	**0.496**	0.111	3.84	1	0.01	0.00496
OCDF	**4.10**	0.176	7.68	1	0.0003	0.00123
		Total TEQ				1.04

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	Percent
Lab Code:	E2200953-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	8.0742g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	64.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.157	0.818			1
1,2,3,7,8-PeCDD	0.139**JK**		0.0752	4.09	2.69	1.000	1
1,2,3,6,7,8-HxCDD	0.274**J**		0.00802	4.09	1.27	1.000	1
1,2,3,4,7,8-HxCDD	0.348**BJK**		0.00901	4.09	2.37	1.000	1
1,2,3,7,8,9-HxCDD	0.168**BJK**		0.00851	4.09	1.79	1.007	1
1,2,3,4,6,7,8-HpCDD	3.88**JK**		0.0779	4.09	1.22	1.000	1
OCDD	177		1.45	8.18	0.87	1.000	1
2,3,7,8-TCDF	0.712**JK**		0.192	0.818	0.90	1.001	1
1,2,3,7,8-PeCDF	0.348**JK**		0.170	4.09	0.93	1.001	1
2,3,4,7,8-PeCDF	ND	U	0.152	4.09			1
1,2,3,6,7,8-HxCDF	0.362**J**		0.0770	4.09	1.09	1.000	1
1,2,3,7,8,9-HxCDF	0.253**BJK**		0.0910	4.09	0.57	1.001	1
1,2,3,4,7,8-HxCDF	0.477**J**		0.0696	4.09	1.26	1.000	1
2,3,4,6,7,8-HxCDF	0.240**J**		0.0586	4.09	1.25	1.000	1
1,2,3,4,6,7,8-HpCDF	1.90**J**		0.0244	4.09	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	0.214**BJK**		0.0254	4.09	2.91	1.000	1
OCDF	6.56**J**		0.380	8.18	0.91	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.157	0.818			1
Total Penta-Dioxins	ND	U	0.0752	4.09			1
Total Hexa-Dioxins	0.983**J**		0.00851	4.09	1.21		1
Total Hepta-Dioxins	6.75		0.0779	4.09	1.02		1
Total Tetra-Furans	ND	U	0.192	0.818			1
Total Penta-Furans	ND	U	0.161	4.09			1
Total Hexa-Furans	1.33**J**		0.0724	4.09	1.17		1
Total Hepta-Furans	1.90**J**		0.0249	4.09	1.00		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	Percent
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	726.080	36	**Y**	40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	561.708	28	**Y**	40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	394.660	20	**Y**	40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	439.228	22	**Y**	40-135	1.23	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	346.928	17	**Y**	40-135	1.06	1.068
13C-OCDD	4000	425.098	11	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	679.812	34	**Y**	40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	551.530	28	**Y**	40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	583.140	29	**Y**	40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	421.181	21	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	367.277	18	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	395.060	20	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	523.581	26	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	273.370	14	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	328.706	16	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	391.508	49		40-135	NA	1.024

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.157	0.818	1	1	
1,2,3,7,8-PeCDD	**0.139**	0.0752	4.09	1	1	0.139
1,2,3,6,7,8-HxCDD	**0.274**	0.00802	4.09	1	0.1	0.0274
1,2,3,4,7,8-HxCDD	**0.348**	0.00901	4.09	1	0.1	0.0348
1,2,3,7,8,9-HxCDD	**0.168**	0.00851	4.09	1	0.1	0.0168
1,2,3,4,6,7,8-HpCDD	**3.88**	0.0779	4.09	1	0.01	0.0388
OCDD	**177**	1.45	8.18	1	0.0003	0.0531
2,3,7,8-TCDF	**0.712**	0.192	0.818	1	0.1	0.0712
1,2,3,7,8-PeCDF	**0.348**	0.170	4.09	1	0.03	0.0104
2,3,4,7,8-PeCDF	ND	0.152	4.09	1	0.3	
1,2,3,6,7,8-HxCDF	**0.362**	0.0770	4.09	1	0.1	0.0362
1,2,3,7,8,9-HxCDF	**0.253**	0.0910	4.09	1	0.1	0.0253
1,2,3,4,7,8-HxCDF	**0.477**	0.0696	4.09	1	0.1	0.0477
2,3,4,6,7,8-HxCDF	**0.240**	0.0586	4.09	1	0.1	0.0240
1,2,3,4,6,7,8-HpCDF	**1.90**	0.0244	4.09	1	0.01	0.0190
1,2,3,4,7,8,9-HpCDF	**0.214**	0.0254	4.09	1	0.01	0.00214
OCDF	**6.56**	0.380	8.18	1	0.0003	0.00197
		Total TEQ				0.548

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	Percent
Lab Code:	E2200953-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.8376g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	60.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	21.6		3.86	3.86	0.74	1.001	1
1,2,3,7,8-PeCDD	20.5	**K**	2.23	4.12	1.30	1.001	1
1,2,3,6,7,8-HxCDD	5.09		0.575	4.12	1.24	1.000	1
1,2,3,4,7,8-HxCDD	4.11	**J**	0.629	4.12	1.05	1.000	1
1,2,3,7,8,9-HxCDD	5.13		0.601	4.12	1.37	1.007	1
1,2,3,4,6,7,8-HpCDD	81.3		0.223	4.12	1.07	1.000	1
OCDD	714		2.75	8.24	0.90	1.000	1
2,3,7,8-TCDF	300		0.745	0.824	0.74	1.001	1
1,2,3,7,8-PeCDF	250		18.6	18.6	1.52	1.000	1
2,3,4,7,8-PeCDF	244		16.2	16.2	1.52	1.000	1
1,2,3,6,7,8-HxCDF	84.7		0.771	4.12	1.20	1.001	1
1,2,3,7,8,9-HxCDF	15.5		0.929	4.12	1.15	1.001	1
1,2,3,4,7,8-HxCDF	83.9		0.714	4.12	1.15	1.001	1
2,3,4,6,7,8-HxCDF	37.3		0.596	4.12	1.13	1.001	1
1,2,3,4,6,7,8-HpCDF	36.8		0.372	4.12	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	4.64		0.395	4.12	1.02	1.000	1
OCDF	15.1		0.464	8.24	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	308		3.86	3.86	0.80		1
Total Penta-Dioxins	104		2.23	4.12	1.53		1
Total Hexa-Dioxins	45.1		0.601	4.12	1.13		1
Total Hepta-Dioxins	146		0.223	4.12	1.03		1
Total Tetra-Furans	6000		0.745	0.824	0.71		1
Total Penta-Furans	2720		0.104	4.12	1.46		1
Total Hexa-Furans	537		0.734	4.12	1.18		1
Total Hepta-Furans	51.8		0.383	4.12	0.98		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	Percent
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	466.359	23	**Y**	40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	489.452	24	**Y**	40-135	1.62	1.206
13C-1,2,3,4,7,8-HxCDD	2000	428.307	21	**Y**	40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	471.152	24	**Y**	40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	404.588	20	**Y**	40-135	1.08	1.068
13C-OCDD	4000	528.378	13	**Y**	40-135	0.85	1.140
13C-2,3,7,8-TCDF	2000	414.862	21	**Y**	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	446.708	22	**Y**	40-135	1.60	1.160
13C-2,3,4,7,8-PeCDF	2000	490.724	25	**Y**	40-135	1.63	1.196
13C-1,2,3,4,7,8-HxCDF	2000	439.699	22	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	391.646	20	**Y**	40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	412.065	21	**Y**	40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	556.576	28	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	314.080	16	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	377.291	19	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	287.068	36	**Y**	40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**21.6**	3.86	3.86	1	1	21.6
1,2,3,7,8-PeCDD	**20.5**	2.23	4.12	1	1	20.5
1,2,3,6,7,8-HxCDD	**5.09**	0.575	4.12	1	0.1	0.509
1,2,3,4,7,8-HxCDD	**4.11**	0.629	4.12	1	0.1	0.411
1,2,3,7,8,9-HxCDD	**5.13**	0.601	4.12	1	0.1	0.513
1,2,3,4,6,7,8-HpCDD	**81.3**	0.223	4.12	1	0.01	0.813
OCDD	**714**	2.75	8.24	1	0.0003	0.214
2,3,7,8-TCDF	**300**	0.745	0.824	1	0.1	30.0
1,2,3,7,8-PeCDF	**250**	18.6	18.6	1	0.03	7.50
2,3,4,7,8-PeCDF	**244**	16.2	16.2	1	0.3	73.2
1,2,3,6,7,8-HxCDF	**84.7**	0.771	4.12	1	0.1	8.47
1,2,3,7,8,9-HxCDF	**15.5**	0.929	4.12	1	0.1	1.55
1,2,3,4,7,8-HxCDF	**83.9**	0.714	4.12	1	0.1	8.39
2,3,4,6,7,8-HxCDF	**37.3**	0.596	4.12	1	0.1	3.73
1,2,3,4,6,7,8-HpCDF	**36.8**	0.372	4.12	1	0.01	0.368
1,2,3,4,7,8,9-HpCDF	**4.64**	0.395	4.12	1	0.01	0.0464
OCDF	**15.1**	0.464	8.24	1	0.0003	0.00453
		Total TEQ				178

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	Percent
Lab Code:	E2200953-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.05g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.0		-	-			1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.115	0.848			1
1,2,3,7,8-PeCDD	ND	U	0.135	4.24			1
1,2,3,6,7,8-HxCDD	0.129**BJK**		0.0399	4.24	0.61	1.001	1
1,2,3,4,7,8-HxCDD	0.350**BJ**		0.0448	4.24	1.35	1.000	1
1,2,3,7,8,9-HxCDD	0.246**BJ**		0.0423	4.24	1.18	1.007	1
1,2,3,4,6,7,8-HpCDD	5.73		0.172	4.24	1.19	1.001	1
OCDD	326		1.34	8.48	0.86	1.000	1
2,3,7,8-TCDF	2.29		0.141	0.848	0.73	1.000	1
1,2,3,7,8-PeCDF	1.01**JK**		0.195	4.24	1.22	1.000	1
2,3,4,7,8-PeCDF	1.32**J**		0.195	4.24	1.37	1.001	1
1,2,3,6,7,8-HxCDF	0.521**JK**		0.0531	4.24	1.83	1.001	1
1,2,3,7,8,9-HxCDF	0.142**BJK**		0.0575	4.24	0.71	1.001	1
1,2,3,4,7,8-HxCDF	0.712**J**		0.0482	4.24	1.13	1.001	1
2,3,4,6,7,8-HxCDF	0.217**JK**		0.0428	4.24	1.53	1.000	1
1,2,3,4,6,7,8-HpCDF	1.10**BJK**		0.0892	4.24	0.87	1.000	1
1,2,3,4,7,8,9-HpCDF	0.237**BJK**		0.0929	4.24	0.81	1.001	1
OCDF	19.7		0.178	8.48	0.91	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.115	0.848			1
Total Penta-Dioxins	ND	U	0.135	4.24			1
Total Hexa-Dioxins	0.711**J**		0.0423	4.24	1.17		1
Total Hepta-Dioxins	6.20		0.172	4.24	1.19		1
Total Tetra-Furans	6.61		0.141	0.848	0.67		1
Total Penta-Furans	3.98**J**		0.107	4.24	1.58		1
Total Hexa-Furans	1.73**J**		0.0499	4.24	1.36		1
Total Hepta-Furans	2.95**J**		0.0911	4.24	1.15		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	Percent
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1067.192	53		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	905.440	45		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	732.749	37	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	826.993	41		40-135	1.25	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	764.292	38	**Y**	40-135	1.06	1.068
13C-OCDD	4000	1139.233	28	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	947.965	47		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	898.881	45		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	877.317	44		40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	789.756	39	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	686.136	34	**Y**	40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	819.951	41		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	938.274	47		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	610.639	31	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	727.108	36	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	466.627	58		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.115	0.848	1	1	
1,2,3,7,8-PeCDD	ND	0.135	4.24	1	1	
1,2,3,6,7,8-HxCDD	**0.129**	0.0399	4.24	1	0.1	0.0129
1,2,3,4,7,8-HxCDD	**0.350**	0.0448	4.24	1	0.1	0.0350
1,2,3,7,8,9-HxCDD	**0.246**	0.0423	4.24	1	0.1	0.0246
1,2,3,4,6,7,8-HpCDD	**5.73**	0.172	4.24	1	0.01	0.0573
OCDD	**326**	1.34	8.48	1	0.0003	0.0978
2,3,7,8-TCDF	**2.29**	0.141	0.848	1	0.1	0.229
1,2,3,7,8-PeCDF	**1.01**	0.195	4.24	1	0.03	0.0303
2,3,4,7,8-PeCDF	**1.32**	0.195	4.24	1	0.3	0.396
1,2,3,6,7,8-HxCDF	**0.521**	0.0531	4.24	1	0.1	0.0521
1,2,3,7,8,9-HxCDF	**0.142**	0.0575	4.24	1	0.1	0.0142
1,2,3,4,7,8-HxCDF	**0.712**	0.0482	4.24	1	0.1	0.0712
2,3,4,6,7,8-HxCDF	**0.217**	0.0428	4.24	1	0.1	0.0217
1,2,3,4,6,7,8-HpCDF	**1.10**	0.0892	4.24	1	0.01	0.0110
1,2,3,4,7,8,9-HpCDF	**0.237**	0.0929	4.24	1	0.01	0.00237
OCDF	**19.7**	0.178	8.48	1	0.0003	0.00591
		Total TEQ				1.06

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	Percent
Lab Code:	E2200953-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.6919g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.129	0.774			1
1,2,3,7,8-PeCDD	ND	U	0.0826	3.87			1
1,2,3,6,7,8-HxCDD	0.143**BJ**		0.0660	3.87	1.08	1.000	1
1,2,3,4,7,8-HxCDD	0.244**BJK**		0.0716	3.87	0.80	1.000	1
1,2,3,7,8,9-HxCDD	0.186**BJ**		0.0688	3.87	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	4.30		0.0807	3.87	1.07	1.000	1
OCDD	245		1.11	7.74	0.87	1.000	1
2,3,7,8-TCDF	2.57		0.136	0.774	0.88	1.001	1
1,2,3,7,8-PeCDF	0.966**J**		0.188	3.87	1.70	1.000	1
2,3,4,7,8-PeCDF	0.901**J**		0.190	3.87	1.35	1.000	1
1,2,3,6,7,8-HxCDF	0.550**JK**		0.0511	3.87	1.03	1.001	1
1,2,3,7,8,9-HxCDF	0.236**BJK**		0.0587	3.87	1.97	1.001	1
1,2,3,4,7,8-HxCDF	1.02**JK**		0.0462	3.87	1.49	1.000	1
2,3,4,6,7,8-HxCDF	0.410**J**		0.0419	3.87	1.21	1.000	1
1,2,3,4,6,7,8-HpCDF	2.52**J**		0.0765	3.87	1.12	1.000	1
1,2,3,4,7,8,9-HpCDF	0.500**BJ**		0.0798	3.87	0.90	1.000	1
OCDF	9.24		0.134	7.74	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.129	0.774			1
Total Penta-Dioxins	0.242**J**		0.0826	3.87	1.53		1
Total Hexa-Dioxins	0.467**J**		0.0686	3.87	1.08		1
Total Hepta-Dioxins	10.7		0.0807	3.87	1.04		1
Total Tetra-Furans	3.53		0.136	0.774	0.77		1
Total Penta-Furans	2.30**J**		0.0970	3.87	1.70		1
Total Hexa-Furans	0.700**J**		0.0488	3.87	1.34		1
Total Hepta-Furans	3.39**J**		0.0781	3.87	1.12		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	Percent
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1062.676	53		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	904.495	45		40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	767.841	38	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	839.958	42		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	770.350	39	**Y**	40-135	1.04	1.068
13C-OCDD	4000	1132.888	28	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	877.170	44		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	891.763	45		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	858.245	43		40-135	1.56	1.196
13C-1,2,3,4,7,8-HxCDF	2000	810.467	41		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	715.550	36	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	816.522	41		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	968.281	48		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	629.093	31	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	736.485	37	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	462.001	58		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.129	0.774	1	1	
1,2,3,7,8-PeCDD	ND	0.0826	3.87	1	1	
1,2,3,6,7,8-HxCDD	**0.143**	0.0660	3.87	1	0.1	0.0143
1,2,3,4,7,8-HxCDD	**0.244**	0.0716	3.87	1	0.1	0.0244
1,2,3,7,8,9-HxCDD	**0.186**	0.0688	3.87	1	0.1	0.0186
1,2,3,4,6,7,8-HpCDD	**4.30**	0.0807	3.87	1	0.01	0.0430
OCDD	**245**	1.11	7.74	1	0.0003	0.0735
2,3,7,8-TCDF	**2.57**	0.136	0.774	1	0.1	0.257
1,2,3,7,8-PeCDF	**0.966**	0.188	3.87	1	0.03	0.0290
2,3,4,7,8-PeCDF	**0.901**	0.190	3.87	1	0.3	0.270
1,2,3,6,7,8-HxCDF	**0.550**	0.0511	3.87	1	0.1	0.0550
1,2,3,7,8,9-HxCDF	**0.236**	0.0587	3.87	1	0.1	0.0236
1,2,3,4,7,8-HxCDF	**1.02**	0.0462	3.87	1	0.1	0.102
2,3,4,6,7,8-HxCDF	**0.410**	0.0419	3.87	1	0.1	0.0410
1,2,3,4,6,7,8-HpCDF	**2.52**	0.0765	3.87	1	0.01	0.0252
1,2,3,4,7,8,9-HpCDF	**0.500**	0.0798	3.87	1	0.01	0.00500
OCDF	**9.24**	0.134	7.74	1	0.0003	0.00277
		Total TEQ				0.984

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	Percent
Lab Code:	E2200953-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.721g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.4		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	1.11	1.11			1
1,2,3,7,8-PeCDD	ND	U	0.865	4.13			1
1,2,3,6,7,8-HxCDD	1.34**J**		0.713	4.13	1.20	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.817	4.13			1
1,2,3,7,8,9-HxCDD	1.09**JK**		0.761	4.13	1.59	1.007	1
1,2,3,4,6,7,8-HpCDD	6.10**K**		1.49	4.13	1.61	1.000	1
OCDD	123**K**		5.85	8.26	1.12	1.000	1
2,3,7,8-TCDF	ND	U	1.42	1.42			1
1,2,3,7,8-PeCDF	ND	U	1.44	4.13			1
2,3,4,7,8-PeCDF	ND	U	1.38	4.13			1
1,2,3,6,7,8-HxCDF	ND	U	1.03	4.13			1
1,2,3,7,8,9-HxCDF	ND	U	1.68	4.13			1
1,2,3,4,7,8-HxCDF	1.26**J**		0.980	4.13	1.28	1.000	1
2,3,4,6,7,8-HxCDF	0.989**JK**		0.869	4.13	2.30	1.000	1
1,2,3,4,6,7,8-HpCDF	10.6**K**		0.410	4.13	1.21	1.000	1
1,2,3,4,7,8,9-HpCDF	2.02**J**		0.553	4.13	1.00	1.000	1
OCDF	11.2**K**		3.43	8.26	0.65	1.004	1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	1.11	1.11			1
Total Penta-Dioxins	ND	U	0.865	4.13			1
Total Hexa-Dioxins	3.36**J**		0.760	4.13	1.21		1
Total Hepta-Dioxins	8.74		1.49	4.13	0.95		1
Total Tetra-Furans	ND	U	1.42	1.42			1
Total Penta-Furans	ND	U	1.41	4.13			1
Total Hexa-Furans	1.26**J**		1.08	4.13	1.28		1
Total Hepta-Furans	2.02**J**		0.473	4.13	1.00		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	Percent
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	282.697	14	**Y**	40-135	0.77	1.024
13C-1,2,3,7,8-PeCDD	2000	199.324	10	**Y**	40-135	1.63	1.207
13C-1,2,3,4,7,8-HxCDD	2000	193.291	10	**Y**	40-135	1.31	0.991
13C-1,2,3,6,7,8-HxCDD	2000	230.608	12	**Y**	40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	161.546	8	**Y**	40-135	1.08	1.068
13C-OCDD	4000	204.848	5	**Y**	40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	261.603	13	**Y**	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	194.124	10	**Y**	40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	198.611	10	**Y**	40-135	1.61	1.196
13C-1,2,3,4,7,8-HxCDF	2000	210.502	11	**Y**	40-135	0.49	0.970
13C-1,2,3,6,7,8-HxCDF	2000	199.332	10	**Y**	40-135	0.47	0.972
13C-1,2,3,7,8,9-HxCDF	2000	158.763	8	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	246.741	12	**Y**	40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	134.869	7	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	124.361	6	**Y**	40-135	0.39	1.080
37Cl-2,3,7,8-TCDD	800	234.273	29	**Y**	40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	1.11	1.11	1	1	
1,2,3,7,8-PeCDD	ND	0.865	4.13	1	1	
1,2,3,6,7,8-HxCDD	**1.34**	0.713	4.13	1	0.1	0.134
1,2,3,4,7,8-HxCDD	ND	0.817	4.13	1	0.1	
1,2,3,7,8,9-HxCDD	**1.09**	0.761	4.13	1	0.1	0.109
1,2,3,4,6,7,8-HpCDD	**6.10**	1.49	4.13	1	0.01	0.0610
OCDD	**123**	5.85	8.26	1	0.0003	0.0369
2,3,7,8-TCDF	ND	1.42	1.42	1	0.1	
1,2,3,7,8-PeCDF	ND	1.44	4.13	1	0.03	
2,3,4,7,8-PeCDF	ND	1.38	4.13	1	0.3	
1,2,3,6,7,8-HxCDF	ND	1.03	4.13	1	0.1	
1,2,3,7,8,9-HxCDF	ND	1.68	4.13	1	0.1	
1,2,3,4,7,8-HxCDF	**1.26**	0.980	4.13	1	0.1	0.126
2,3,4,6,7,8-HxCDF	**0.989**	0.869	4.13	1	0.1	0.0989
1,2,3,4,6,7,8-HpCDF	**10.6**	0.410	4.13	1	0.01	0.106
1,2,3,4,7,8,9-HpCDF	**2.02**	0.553	4.13	1	0.01	0.0202
OCDF	**11.2**	3.43	8.26	1	0.0003	0.00336
		Total TEQ				0.695

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	Percent
Lab Code:	E2200953-007	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	4.1118g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.183	0.769			1
1,2,3,7,8-PeCDD	ND	U	0.0770	3.85			1
1,2,3,6,7,8-HxCDD	0.238**J**		0.127	3.85	1.09	1.000	1
1,2,3,4,7,8-HxCDD	0.453**JK**		0.141	3.85	0.68	1.000	1
1,2,3,7,8,9-HxCDD	ND	U	0.134	3.85			1
1,2,3,4,6,7,8-HpCDD	6.33**K**		0.406	3.85	1.26	1.000	1
OCDD	144		0.983	7.69	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.151	0.769			1
1,2,3,7,8-PeCDF	ND	U	0.153	3.85			1
2,3,4,7,8-PeCDF	ND	U	0.158	3.85			1
1,2,3,6,7,8-HxCDF	0.181**J**		0.0598	3.85	1.05	1.000	1
1,2,3,7,8,9-HxCDF	0.221**JK**		0.0831	3.85	0.80	1.000	1
1,2,3,4,7,8-HxCDF	0.197**J**		0.0567	3.85	1.05	1.000	1
2,3,4,6,7,8-HxCDF	0.166**JK**		0.0533	3.85	0.90	1.000	1
1,2,3,4,6,7,8-HpCDF	0.866**JK**		0.0157	3.85	1.39	1.001	1
1,2,3,4,7,8,9-HpCDF	0.128**JK**		0.0196	3.85	0.61	1.000	1
OCDF	1.70**J**		0.469	7.69	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.183	0.769			1
Total Penta-Dioxins	ND	U	0.0770	3.85			1
Total Hexa-Dioxins	0.804**J**		0.134	3.85	1.09		1
Total Hepta-Dioxins	20.4		0.406	3.85	1.15		1
Total Tetra-Furans	0.229**J**		0.151	0.769	0.79		1
Total Penta-Furans	ND	U	0.155	3.85			1
Total Hexa-Furans	ND	U	0.0616	3.85			1
Total Hepta-Furans	0.686**J**		0.0176	3.85	0.95		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	Percent
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1725.572	86		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1372.832	69		40-135	1.59	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1375.715	69		40-135	1.39	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1583.941	79		40-135	1.23	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1179.658	59		40-135	1.06	1.068
13C-OCDD	4000	1457.791	36	**Y**	40-135	0.86	1.139
13C-2,3,7,8-TCDF	2000	1537.440	77		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	1379.482	69		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1289.226	64		40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1480.150	74		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1397.295	70		40-135	0.52	0.972
13C-1,2,3,7,8,9-HxCDF	2000	1287.359	64		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1689.888	84		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1007.442	50		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1026.187	51		40-135	0.45	1.080
37Cl-2,3,7,8-TCDD	800	419.938	52		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.183	0.769	1	1	
1,2,3,7,8-PeCDD	ND	0.0770	3.85	1	1	
1,2,3,6,7,8-HxCDD	**0.238**	0.127	3.85	1	0.1	0.0238
1,2,3,4,7,8-HxCDD	**0.453**	0.141	3.85	1	0.1	0.0453
1,2,3,7,8,9-HxCDD	ND	0.134	3.85	1	0.1	
1,2,3,4,6,7,8-HpCDD	**6.33**	0.406	3.85	1	0.01	0.0633
OCDD	**144**	0.983	7.69	1	0.0003	0.0432
2,3,7,8-TCDF	ND	0.151	0.769	1	0.1	
1,2,3,7,8-PeCDF	ND	0.153	3.85	1	0.03	
2,3,4,7,8-PeCDF	ND	0.158	3.85	1	0.3	
1,2,3,6,7,8-HxCDF	**0.181**	0.0598	3.85	1	0.1	0.0181
1,2,3,7,8,9-HxCDF	**0.221**	0.0831	3.85	1	0.1	0.0221
1,2,3,4,7,8-HxCDF	**0.197**	0.0567	3.85	1	0.1	0.0197
2,3,4,6,7,8-HxCDF	**0.166**	0.0533	3.85	1	0.1	0.0166
1,2,3,4,6,7,8-HpCDF	**0.866**	0.0157	3.85	1	0.01	0.00866
1,2,3,4,7,8,9-HpCDF	**0.128**	0.0196	3.85	1	0.01	0.00128
OCDF	**1.70**	0.469	7.69	1	0.0003	0.000510
		Total TEQ				0.263

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	Percent
Lab Code:	E2200953-008	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.6124g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.0		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0448	0.490			1
1,2,3,7,8-PeCDD	ND	U	0.0279	2.45			1
1,2,3,6,7,8-HxCDD	0.0188**JK**		0.0180	2.45	5.33	1.000	1
1,2,3,4,7,8-HxCDD	0.147**JK**		0.0196	2.45	1.02	1.000	1
1,2,3,7,8,9-HxCDD	0.0303**JK**		0.0188	2.45	0.58	1.007	1
1,2,3,4,6,7,8-HpCDD	0.290**J**		0.00981	2.45	1.09	1.001	1
OCDD	2.76**J**		0.119	4.90	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0580	0.490			1
1,2,3,7,8-PeCDF	ND	U	0.0354	2.45			1
2,3,4,7,8-PeCDF	ND	U	0.0358	2.45			1
1,2,3,6,7,8-HxCDF	0.0330**J**		0.0143	2.45	1.16	1.000	1
1,2,3,7,8,9-HxCDF	0.0281**JK**		0.0167	2.45	0.34	1.001	1
1,2,3,4,7,8-HxCDF	0.0436**J**		0.0128	2.45	1.20	1.000	1
2,3,4,6,7,8-HxCDF	0.0144**JK**		0.0121	2.45	0.68	1.001	1
1,2,3,4,6,7,8-HpCDF	0.123**JK**		0.00344	2.45	0.80	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0891**J**		0.00353	2.45	1.10	1.000	1
OCDF	0.336**JK**		0.0429	4.90	0.75	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0448	0.490			1
Total Penta-Dioxins	0.0675**J**		0.0279	2.45	1.35		1
Total Hexa-Dioxins	0.0545**J**		0.0188	2.45	1.41		1
Total Hepta-Dioxins	0.599**J**		0.00981	2.45	0.98		1
Total Tetra-Furans	ND	U	0.0580	0.490			1
Total Penta-Furans	ND	U	0.0356	2.45			1
Total Hexa-Furans	0.0767**J**		0.0138	2.45	1.20		1
Total Hepta-Furans	0.0891**J**		0.00353	2.45	1.10		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1338.963	67		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1180.236	59		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1011.887	51		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1148.996	57		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1095.539	55		40-135	1.06	1.068
13C-OCDD	4000	1640.166	41		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1158.315	58		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1170.581	59		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	1103.238	55		40-135	1.55	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1130.728	57		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	975.985	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1039.819	52		40-135	0.53	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1243.776	62		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	859.279	43		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1058.480	53		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	683.377	85		40-135	NA	1.024

Accuracy & Precision

ALS Environmental - Houston HRMS
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QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Analyzed:**	11/14/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785786

	Lab Control Sample EQ2200474-02			Duplicate Lab Control Sample EQ2200474-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	87.0	98.6	88	88.5	98.7	90	70-130	2	25
1,2,3,4,7,8-HxCDD	93.1	98.6	94	97.1	98.7	98	70-130	4	25
1,2,3,6,7,8-HxCDD	86.8	98.6	88	88.9	98.7	90	70-130	2	25
1,2,3,7,8,9-HxCDD	92.0	98.6	93	97.5	98.7	99	70-130	6	25
1,2,3,7,8-PeCDD	88.7	98.6	90	90.8	98.7	92	70-130	2	25
2,3,7,8-TCDD	15.1	19.7	76	15.3	19.7	78	70-130	2	25
OCDD	184	197	93	187	197	95	70-130	1	25
1,2,3,4,6,7,8-HpCDF	91.2	98.6	92	96.5	98.7	98	70-130	6	25
1,2,3,4,7,8,9-HpCDF	85.4	98.6	87	88.0	98.7	89	70-130	3	25
1,2,3,4,7,8-HxCDF	85.4	98.6	87	88.5	98.7	90	70-130	4	25
1,2,3,6,7,8-HxCDF	94.1	98.6	95	96.8	98.7	98	70-130	3	25
1,2,3,7,8,9-HxCDF	85.8	98.6	87	89.3	98.7	91	70-130	4	25
1,2,3,7,8-PeCDF	86.8	98.6	88	90.2	98.7	91	70-130	4	25
2,3,4,6,7,8-HxCDF	77.8	98.6	79	80.8	98.7	82	70-130	4	25
2,3,4,7,8-PeCDF	90.9	98.6	92	97.8	98.7	99	70-130	7	25
2,3,7,8-TCDF	17.4	19.7	88	18.4	19.7	93	70-130	5	25
OCDF	191	197	97	198	197	100	70-130	4	25

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.1		0.0693	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	88.7		0.0538	2.47	1.54	1.001	1
1,2,3,6,7,8-HxCDD	86.8		0.0114	2.47	1.31	1.000	1
1,2,3,4,7,8-HxCDD	93.1		0.0129	2.47	1.24	1.000	1
1,2,3,7,8,9-HxCDD	92.0		0.0121	2.47	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	87.0		0.0360	2.47	1.04	1.000	1
OCDD	184		1.08	4.93	0.85	1.000	1
2,3,7,8-TCDF	17.4		0.0539	0.493	0.73	1.001	1
1,2,3,7,8-PeCDF	86.8		0.237	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	90.9		0.249	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	94.1		0.00484	2.47	1.21	1.000	1
1,2,3,7,8,9-HxCDF	85.8		0.00622	2.47	1.17	1.000	1
1,2,3,4,7,8-HxCDF	85.4		0.00444	2.47	1.21	1.000	1
2,3,4,6,7,8-HxCDF	77.8		0.00415	2.47	1.19	1.000	1
1,2,3,4,6,7,8-HpCDF	91.2		0.166	2.47	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	85.4		0.193	2.47	1.03	1.000	1
OCDF	191		0.759	4.93	0.87	1.004	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.1		0.0693	0.493	0.73		1
Total Penta-Dioxins	88.7		0.0538	2.47	1.54		1
Total Hexa-Dioxins	272		0.0121	2.47	1.24		1
Total Hepta-Dioxins	87.0		0.0360	2.47	1.04		1
Total Tetra-Furans	17.4		0.0539	0.493	0.73		1
Total Penta-Furans	178		0.243	2.47	1.49		1
Total Hexa-Furans	343		0.00484	2.47	1.21		1
Total Hepta-Furans	177		0.179	2.47	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1393.184	70		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	1111.305	56		40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1180.259	59		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1385.600	69		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1173.807	59		40-135	1.05	1.068
13C-OCDD	4000	1675.477	42		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1177.771	59		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1121.285	56		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1032.181	52		40-135	1.59	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1310.050	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1165.428	58		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1208.008	60		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1437.627	72		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	978.253	49		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1074.929	54		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	587.310	73		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.3		0.0757	0.493	0.76	1.001	1
1,2,3,7,8-PeCDD	90.8		0.0433	2.47	1.59	1.001	1
1,2,3,6,7,8-HxCDD	88.9		0.0250	2.47	1.29	1.000	1
1,2,3,4,7,8-HxCDD	97.1		0.0279	2.47	1.25	1.000	1
1,2,3,7,8,9-HxCDD	97.5		0.0264	2.47	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	88.5		0.0127	2.47	1.06	1.000	1
OCDD	187		0.987	4.93	0.90	1.000	1
2,3,7,8-TCDF	18.4		0.0525	0.493	0.74	1.001	1
1,2,3,7,8-PeCDF	90.2		0.326	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	97.8		0.338	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	96.8		0.0146	2.47	1.23	1.000	1
1,2,3,7,8,9-HxCDF	89.3		0.0188	2.47	1.16	1.000	1
1,2,3,4,7,8-HxCDF	88.5		0.0133	2.47	1.18	1.000	1
2,3,4,6,7,8-HxCDF	80.8		0.0131	2.47	1.17	1.000	1
1,2,3,4,6,7,8-HpCDF	96.5		0.195	2.47	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	88.0		0.207	2.47	0.99	1.000	1
OCDF	198		0.104	4.93	0.92	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.0757	0.493	0.76		1
Total Penta-Dioxins	91.0		0.0433	2.47	1.59		1
Total Hexa-Dioxins	284		0.0264	2.47	1.25		1
Total Hepta-Dioxins	88.5		0.0127	2.47	1.06		1
Total Tetra-Furans	18.4		0.0525	0.493	0.74		1
Total Penta-Furans	189		0.332	2.47	1.49		1
Total Hexa-Furans	355		0.0147	2.47	1.18		1
Total Hepta-Furans	184		0.201	2.47	0.98		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1588.992	79		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1304.869	65		40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1328.136	66		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1501.285	75		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1221.116	61		40-135	1.03	1.068
13C-OCDD	4000	1592.697	40		40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	1325.123	66		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1294.477	65		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1186.517	59		40-135	1.55	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1479.181	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1310.113	66		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1303.443	65		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1570.879	79		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	984.188	49		40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1155.790	58		40-135	0.43	1.081
37Cl-2,3,7,8-TCDD	800	696.874	87		40-135	NA	1.025

ANALYTICAL REPORT

Lab Number:	L2253426
Client:	Normandeau Associates, Inc. 600 Beach Road West Haverstraw, NY 10993
ATTN:	Mike Taylor
Phone:	(603) 637-1193
Project Name:	CHPE HUDSON RIVER
Project Number:	24711.001
Report Date:	10/07/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253426-01	PORT EWEN 2A	SEDIMENT	KINGSTON, NY	09/27/22 10:00	09/28/22
L2253426-02	PORT EWEN 2B	SEDIMENT	KINGSTON, NY	09/27/22 10:10	09/28/22
L2253426-03	PORT EWEN 3A	SEDIMENT	KINGSTON, NY	09/27/22 09:00	09/28/22
L2253426-04	PORT EWEN 3B	SEDIMENT	KINGSTON, NY	09/27/22 09:20	09/28/22
L2253426-05	PORT EWEN 4A	SEDIMENT	KINGSTON, NY	09/27/22 11:00	09/28/22
L2253426-06	PORT EWEN 4B	SEDIMENT	KINGSTON, NY	09/27/22 11:10	09/28/22
L2253426-07	PORT EWEN 5A	SEDIMENT	KINGSTON, NY	09/27/22 11:30	09/28/22
L2253426-08	PORT EWEN 5B	SEDIMENT	KINGSTON, NY	09/27/22 11:40	09/28/22

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/07/22

ORGANICS

PCBS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-01
Client ID: PORT EWEN 2A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 10:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 12:01
Analyst: PS
Percent Solids: 67%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.602	0.301	1
Cl3-BZ#18	ND		ug/kg	0.602	0.301	1
Cl3-BZ#28	ND		ug/kg	0.602	0.301	1
Cl4-BZ#44	ND		ug/kg	0.602	0.301	1
Cl4-BZ#49	ND		ug/kg	0.602	0.301	1
Cl4-BZ#52	ND		ug/kg	0.602	0.301	1
Cl4-BZ#66	ND		ug/kg	0.602	0.301	1
Cl5-BZ#87	ND		ug/kg	0.602	0.301	1
Cl5-BZ#101	ND		ug/kg	0.602	0.301	1
Cl5-BZ#105	ND		ug/kg	0.602	0.301	1
Cl5-BZ#118	ND		ug/kg	0.602	0.301	1
Cl6-BZ#128	ND		ug/kg	0.602	0.301	1
Cl6-BZ#138	ND		ug/kg	0.602	0.301	1
Cl6-BZ#153	ND		ug/kg	0.602	0.301	1
Cl7-BZ#170	ND		ug/kg	0.602	0.301	1
Cl7-BZ#180	ND		ug/kg	0.602	0.301	1
Cl7-BZ#183	ND		ug/kg	0.602	0.301	1
Cl7-BZ#184	ND		ug/kg	0.602	0.301	1
Cl7-BZ#187	ND		ug/kg	0.602	0.301	1
Cl8-BZ#195	ND		ug/kg	0.602	0.301	1
Cl9-BZ#206	ND		ug/kg	0.602	0.301	1
Cl10-BZ#209	ND		ug/kg	0.602	0.301	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	94		50-125
BZ 198	105		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-02
Client ID: PORT EWEN 2B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 10:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 12:33
Analyst: PS
Percent Solids: 66%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.555	0.277	1
Cl3-BZ#18	ND		ug/kg	0.555	0.277	1
Cl3-BZ#28	ND		ug/kg	0.555	0.277	1
Cl4-BZ#44	ND		ug/kg	0.555	0.277	1
Cl4-BZ#49	ND		ug/kg	0.555	0.277	1
Cl4-BZ#52	ND		ug/kg	0.555	0.277	1
Cl4-BZ#66	ND		ug/kg	0.555	0.277	1
Cl5-BZ#87	ND		ug/kg	0.555	0.277	1
Cl5-BZ#101	ND		ug/kg	0.555	0.277	1
Cl5-BZ#105	ND		ug/kg	0.555	0.277	1
Cl5-BZ#118	ND		ug/kg	0.555	0.277	1
Cl6-BZ#128	ND		ug/kg	0.555	0.277	1
Cl6-BZ#138	ND		ug/kg	0.555	0.277	1
Cl6-BZ#153	ND		ug/kg	0.555	0.277	1
Cl7-BZ#170	ND		ug/kg	0.555	0.277	1
Cl7-BZ#180	ND		ug/kg	0.555	0.277	1
Cl7-BZ#183	ND		ug/kg	0.555	0.277	1
Cl7-BZ#184	ND		ug/kg	0.555	0.277	1
Cl7-BZ#187	ND		ug/kg	0.555	0.277	1
Cl8-BZ#195	ND		ug/kg	0.555	0.277	1
Cl9-BZ#206	ND		ug/kg	0.555	0.277	1
Cl10-BZ#209	ND		ug/kg	0.555	0.277	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	98		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-03
Client ID: PORT EWEN 3A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 13:06
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.596	0.298	1
Cl3-BZ#18	ND		ug/kg	0.596	0.298	1
Cl3-BZ#28	ND		ug/kg	0.596	0.298	1
Cl4-BZ#44	ND		ug/kg	0.596	0.298	1
Cl4-BZ#49	ND		ug/kg	0.596	0.298	1
Cl4-BZ#52	ND		ug/kg	0.596	0.298	1
Cl4-BZ#66	ND		ug/kg	0.596	0.298	1
Cl5-BZ#87	ND		ug/kg	0.596	0.298	1
Cl5-BZ#101	ND		ug/kg	0.596	0.298	1
Cl5-BZ#105	ND		ug/kg	0.596	0.298	1
Cl5-BZ#118	ND		ug/kg	0.596	0.298	1
Cl6-BZ#128	ND		ug/kg	0.596	0.298	1
Cl6-BZ#138	ND		ug/kg	0.596	0.298	1
Cl6-BZ#153	ND		ug/kg	0.596	0.298	1
Cl7-BZ#170	ND		ug/kg	0.596	0.298	1
Cl7-BZ#180	ND		ug/kg	0.596	0.298	1
Cl7-BZ#183	ND		ug/kg	0.596	0.298	1
Cl7-BZ#184	ND		ug/kg	0.596	0.298	1
Cl7-BZ#187	ND		ug/kg	0.596	0.298	1
Cl8-BZ#195	ND		ug/kg	0.596	0.298	1
Cl9-BZ#206	ND		ug/kg	0.596	0.298	1
Cl10-BZ#209	ND		ug/kg	0.596	0.298	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	103		50-125
BZ 198	108		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-04
Client ID: PORT EWEN 3B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:20
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 13:38
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.609	0.304	1
Cl3-BZ#18	ND		ug/kg	0.609	0.304	1
Cl3-BZ#28	ND		ug/kg	0.609	0.304	1
Cl4-BZ#44	ND		ug/kg	0.609	0.304	1
Cl4-BZ#49	ND		ug/kg	0.609	0.304	1
Cl4-BZ#52	ND		ug/kg	0.609	0.304	1
Cl4-BZ#66	ND		ug/kg	0.609	0.304	1
Cl5-BZ#87	ND		ug/kg	0.609	0.304	1
Cl5-BZ#101	ND		ug/kg	0.609	0.304	1
Cl5-BZ#105	ND		ug/kg	0.609	0.304	1
Cl5-BZ#118	ND		ug/kg	0.609	0.304	1
Cl6-BZ#128	ND		ug/kg	0.609	0.304	1
Cl6-BZ#138	ND		ug/kg	0.609	0.304	1
Cl6-BZ#153	ND		ug/kg	0.609	0.304	1
Cl7-BZ#170	ND		ug/kg	0.609	0.304	1
Cl7-BZ#180	ND		ug/kg	0.609	0.304	1
Cl7-BZ#183	ND		ug/kg	0.609	0.304	1
Cl7-BZ#184	ND		ug/kg	0.609	0.304	1
Cl7-BZ#187	ND		ug/kg	0.609	0.304	1
Cl8-BZ#195	ND		ug/kg	0.609	0.304	1
Cl9-BZ#206	ND		ug/kg	0.609	0.304	1
Cl10-BZ#209	ND		ug/kg	0.609	0.304	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	99		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-05
Client ID: PORT EWEN 4A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 14:10
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.627	0.314	1
Cl3-BZ#18	ND		ug/kg	0.627	0.314	1
Cl3-BZ#28	ND		ug/kg	0.627	0.314	1
Cl4-BZ#44	ND		ug/kg	0.627	0.314	1
Cl4-BZ#49	ND		ug/kg	0.627	0.314	1
Cl4-BZ#52	ND		ug/kg	0.627	0.314	1
Cl4-BZ#66	ND		ug/kg	0.627	0.314	1
Cl5-BZ#87	ND		ug/kg	0.627	0.314	1
Cl5-BZ#101	ND		ug/kg	0.627	0.314	1
Cl5-BZ#105	ND		ug/kg	0.627	0.314	1
Cl5-BZ#118	ND		ug/kg	0.627	0.314	1
Cl6-BZ#128	ND		ug/kg	0.627	0.314	1
Cl6-BZ#138	ND		ug/kg	0.627	0.314	1
Cl6-BZ#153	ND		ug/kg	0.627	0.314	1
Cl7-BZ#170	ND		ug/kg	0.627	0.314	1
Cl7-BZ#180	ND		ug/kg	0.627	0.314	1
Cl7-BZ#183	ND		ug/kg	0.627	0.314	1
Cl7-BZ#184	ND		ug/kg	0.627	0.314	1
Cl7-BZ#187	ND		ug/kg	0.627	0.314	1
Cl8-BZ#195	ND		ug/kg	0.627	0.314	1
Cl9-BZ#206	ND		ug/kg	0.627	0.314	1
Cl10-BZ#209	ND		ug/kg	0.627	0.314	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	97		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-06
Client ID: PORT EWEN 4B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 14:42
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.632	0.316	1
Cl3-BZ#18	ND		ug/kg	0.632	0.316	1
Cl3-BZ#28	ND		ug/kg	0.632	0.316	1
Cl4-BZ#44	ND		ug/kg	0.632	0.316	1
Cl4-BZ#49	ND		ug/kg	0.632	0.316	1
Cl4-BZ#52	ND		ug/kg	0.632	0.316	1
Cl4-BZ#66	ND		ug/kg	0.632	0.316	1
Cl5-BZ#87	ND		ug/kg	0.632	0.316	1
Cl5-BZ#101	ND		ug/kg	0.632	0.316	1
Cl5-BZ#105	ND		ug/kg	0.632	0.316	1
Cl5-BZ#118	ND		ug/kg	0.632	0.316	1
Cl6-BZ#128	ND		ug/kg	0.632	0.316	1
Cl6-BZ#138	ND		ug/kg	0.632	0.316	1
Cl6-BZ#153	ND		ug/kg	0.632	0.316	1
Cl7-BZ#170	ND		ug/kg	0.632	0.316	1
Cl7-BZ#180	ND		ug/kg	0.632	0.316	1
Cl7-BZ#183	ND		ug/kg	0.632	0.316	1
Cl7-BZ#184	ND		ug/kg	0.632	0.316	1
Cl7-BZ#187	ND		ug/kg	0.632	0.316	1
Cl8-BZ#195	ND		ug/kg	0.632	0.316	1
Cl9-BZ#206	ND		ug/kg	0.632	0.316	1
Cl10-BZ#209	ND		ug/kg	0.632	0.316	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		50-125
BZ 198	93		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-07
Client ID: PORT EWEN 5A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:30
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 15:15
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.631	0.315	1
Cl3-BZ#18	ND		ug/kg	0.631	0.315	1
Cl3-BZ#28	ND		ug/kg	0.631	0.315	1
Cl4-BZ#44	ND		ug/kg	0.631	0.315	1
Cl4-BZ#49	ND		ug/kg	0.631	0.315	1
Cl4-BZ#52	ND		ug/kg	0.631	0.315	1
Cl4-BZ#66	ND		ug/kg	0.631	0.315	1
Cl5-BZ#87	ND		ug/kg	0.631	0.315	1
Cl5-BZ#101	ND		ug/kg	0.631	0.315	1
Cl5-BZ#105	ND		ug/kg	0.631	0.315	1
Cl5-BZ#118	ND		ug/kg	0.631	0.315	1
Cl6-BZ#128	ND		ug/kg	0.631	0.315	1
Cl6-BZ#138	ND		ug/kg	0.631	0.315	1
Cl6-BZ#153	ND		ug/kg	0.631	0.315	1
Cl7-BZ#170	ND		ug/kg	0.631	0.315	1
Cl7-BZ#180	ND		ug/kg	0.631	0.315	1
Cl7-BZ#183	ND		ug/kg	0.631	0.315	1
Cl7-BZ#184	ND		ug/kg	0.631	0.315	1
Cl7-BZ#187	ND		ug/kg	0.631	0.315	1
Cl8-BZ#195	ND		ug/kg	0.631	0.315	1
Cl9-BZ#206	ND		ug/kg	0.631	0.315	1
Cl10-BZ#209	ND		ug/kg	0.631	0.315	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	73		50-125
BZ 198	70		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-08
Client ID: PORT EWEN 5B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:40
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 15:47
Analyst: PS
Percent Solids: 64%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.604	0.302	1
Cl3-BZ#18	ND		ug/kg	0.604	0.302	1
Cl3-BZ#28	ND		ug/kg	0.604	0.302	1
Cl4-BZ#44	ND		ug/kg	0.604	0.302	1
Cl4-BZ#49	ND		ug/kg	0.604	0.302	1
Cl4-BZ#52	ND		ug/kg	0.604	0.302	1
Cl4-BZ#66	ND		ug/kg	0.604	0.302	1
Cl5-BZ#87	ND		ug/kg	0.604	0.302	1
Cl5-BZ#101	ND		ug/kg	0.604	0.302	1
Cl5-BZ#105	ND		ug/kg	0.604	0.302	1
Cl5-BZ#118	ND		ug/kg	0.604	0.302	1
Cl6-BZ#128	ND		ug/kg	0.604	0.302	1
Cl6-BZ#138	ND		ug/kg	0.604	0.302	1
Cl6-BZ#153	ND		ug/kg	0.604	0.302	1
Cl7-BZ#170	ND		ug/kg	0.604	0.302	1
Cl7-BZ#180	ND		ug/kg	0.604	0.302	1
Cl7-BZ#183	ND		ug/kg	0.604	0.302	1
Cl7-BZ#184	ND		ug/kg	0.604	0.302	1
Cl7-BZ#187	ND		ug/kg	0.604	0.302	1
Cl8-BZ#195	ND		ug/kg	0.604	0.302	1
Cl9-BZ#206	ND		ug/kg	0.604	0.302	1
Cl10-BZ#209	ND		ug/kg	0.604	0.302	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	90		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 09:54
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-08 Batch: WG1694842-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	81		50-125
BZ 198	89		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHPE HUDSON RIVER

Project Number: 24711.001

Lab Number: L2253426

Report Date: 10/07/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-08		Batch: WG1694842-2 WG1694842-3					
Cl2-BZ#8	80		83		40-140	4		30
Cl3-BZ#18	80		83		40-140	4		30
Cl3-BZ#28	84		89		40-140	6		30
Cl4-BZ#44	84		92		40-140	9		30
Cl4-BZ#49	83		86		40-140	4		30
Cl4-BZ#52	81		91		40-140	12		30
Cl4-BZ#66	98		106		40-140	8		30
Cl5-BZ#87	85		93		40-140	9		30
Cl5-BZ#101	83		92		40-140	10		30
Cl5-BZ#105	86		90		40-140	5		30
Cl5-BZ#118	83		91		40-140	9		30
Cl6-BZ#128	88		97		40-140	10		30
Cl6-BZ#138	85		95		40-140	11		30
Cl6-BZ#153	85		96		40-140	12		30
Cl7-BZ#170	90		100		40-140	11		30
Cl7-BZ#180	83		91		40-140	9		30
Cl7-BZ#183	81		86		40-140	6		30
Cl7-BZ#184	82		91		40-140	10		30
Cl7-BZ#187	85		97		40-140	13		30
Cl8-BZ#195	91		100		40-140	9		30
Cl9-BZ#206	97		105		40-140	8		30
Cl10-BZ#209	117		130		40-140	11		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-08 Batch: WG1694842-2 WG1694842-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	101		103		50-125
BZ 198	112		124		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-01
Client ID: PORT EWEN 2A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 10:00
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	66.5		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-02
Client ID: PORT EWEN 2B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 10:10
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	66.2		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-03
Client ID: PORT EWEN 3A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.3		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-04
Client ID: PORT EWEN 3B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:20
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.8		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-05
Client ID: PORT EWEN 4A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.9		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-06
Client ID: PORT EWEN 4B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.7		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-07
Client ID: PORT EWEN 5A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 11:30
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.1		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-08
Client ID: PORT EWEN 5B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:40
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.6		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Lab Duplicate Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1694024-1 QC Sample: L2253534-04 Client ID: DUP Sample						
Solids, Total	90.8	88.4	%	3		10

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253426-01A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-02A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-03A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-04A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-05A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-06A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-07A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-08A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 9/ /22

ALPHA Job #: L2253426

Client Information

Client: Normandeau
Address: 400 Old Reading Pk
Stowe PA 19464
Phone: 717-617-7076
Fax:
Email: DNazario@Normandeau.com

Project Information

Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001
(Use Project name as Project #)
Project Manager: Mike Mettler
ALPHAQuote #: 16943

Turn-Around Time

Standard [X]
Rush (only if pre approved) [ ]
Due Date:
# of Days:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

PCB Congeners NOAA 22 8270D-SIM/680(M)

Please specify Metals or TAL.

Deliverables

[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[X] Same as Client Info
PO # 24711.001

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

Sample Filtration

[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID		Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Congeners	NOAA 22	8270D-SIM	680(M)	Total Bottle	Sample Specific Comments
34346 -01	Port Ewen	2A	9/27/22	1000	Soil	NAI	1					
-02		2B		1010			1					
-03		3A		0900			1					
-04		3B		0920			1					
-05		4A		1100			1					
-06		4B		1110			1					
-07		5A		1130			1					
-08		5B		1140			1					

Container Type: GL
Preservative: -

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/27/22 1500	Colleen	9/27/22
	9-28-22 15:30		
	9-28-22 1611		9.28.22 15:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

9/27/22, 1:47 PM

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:OICA (717) 617-7076
DONALD NAZARIO - RM 159
NORMANDEAU CO QUALITY INN
114 ROUTE 28
KINGSTON, NY 12401
UNITED STATES US

SHIP DATE: 27SEP22
ACTWGT: 40.00 LB
CAD: 5720875/INET4530
DIMS: 18x14x14 IN

BILL SENDER

TO SAMPLE RECEIPT
ALPHA ANALYTICAL
8 WALKUP DRIVE

WESTBOROUGH MA 01581
(508) 898-9220

FedEx Express

WED - 28 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 7700 4836 1537
0201

01581
BOS
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EM RRFA

Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name:	**CHPE Hudson River**	**Proj. #:** 24711.001
Site Name:	**Hudson River**	**Task #:** 10
City:	**Poughkeepsie** **State:** **NY**	**Date:** 9/26/22

Field Team Leader(s): MM
Field Crew: DM CB
Station ID #: PORT EWEN 5
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0920 – 0940
Weather: (Clear) Cloudy Rain Temp ___
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 31 ft. Tide: Ebb Flood (Low Slack) High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: EWEN 5 Coring Time: 0935 Penetration Depth: 9.5 ft. Core Recovery: 9' 2" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ___ Coring Time: ___ Penetration Depth: ___ft. Core Recovery: ___ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ___ Coring Time: ___ Penetration Depth: ___ft. Core Recovery: ___ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN 5
Lat / N: 41.885147 35
Lon / E: 73.95384463
PDOP or (SVs): 9

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/26/24

Field Team Leader(s): MM
Field Crew: DM CLB
Station ID #: PORT EWEN 4
Photos: Y (N) File Name: -

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0950 - 1010
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 33 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: EWEN 4 Coring Time: 1000 Penetration Depth: 10 ft. Core Recovery: 9 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN 4
(Lat) / N: 41.806584995
Lon / E: 73.955284660
PDOP or SVs: 8

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other NAD 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
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FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24[illegible].001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/26/22

Field Team Leader(s): MM
Field Crew: DM CCB MM
Station ID #: PORT EWEN EX 3
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1019 - 1040
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 35 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: EWEN 3 Coring Time: 1030 Penetration Depth: 10 ft. Core Recovery: 9' 2" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN3
(Lat) / N: 41.889514 29
Lon / E: 73.998 16408
PDOP or SVs: 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

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Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/26/22

Field Team Leader(s): MM
Field Team Safety Coordinator: MM
Field Crew: DJN CLB
Arrival & Departure Times: 1051 - 1120
Station ID #: PORT EWEN 2
Weather: (Clear) Cloudy Rain Temp —
Photos: Y (N) File Name: —
Wind Conditions (Speed/Direction): 10-15 SW

FIELD DATA

Water Depth: 37 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: EWEN 2 Coring Time: 1111 Penetration Depth: 10 ft. Core Recovery: 9' 1" ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN 2
(Lat) / N: 41.89107706
Lon / E: -73.95940701
PDOP or SVs: 9
Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER
24711.000, Task 10	Port Ewen 3 SHEET 1 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 35
START : 0855 END : 0945 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Ewen 3A VOA taken at 2 ft. at 0900 2 x 8 oz jars 1 VOA kit 1 x 4 oz. jar
4					↓	Ewen 3B VOA taken at 6.5 ft at 0920 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/27/22 Time

PROJECT NUMBER	BORING NUMBER
24711.001, Task 10	Port Ewen 2 SHEET 2 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 37
START : 0945 END : 1030 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Port Ewen 2A VOA taken at 2 ft. at 1000 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4					↓	Port Ewen 2B VOA taken at 6.5 ft at 1010 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Port Ewen 4	SHEET 3 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 33
START : 1050 END : 1120 LOGGER : DTN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout- very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity Cohesive, Silty clay no odor, no sheen	Port Ewen 4A VOA taken at 2 ft at 1100 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4						Port Ewen 4B VOA taken at 6.5 ft at 1110 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER
24711.001, Task 10	Port Ewen 5 SHEET 4 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 31
START : 1125 END : 1205 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very Soft to Soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Port Ewen 5A VOA taken at 2ft. at 1130 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4						Port Ewen 5B VOA taken at 6.5 ft at 1140 2x 8 oz jars 1 VOA kit 1 x 4 oz. Jar
9						

Sediment Core Photos

CHPE Hudson River
Location – Port Ewen
Project No. 24711.001, Task 10


Port Ewen 3
Top
9.27.22
Bottom
Proj#
CHPE Hudson River
24711.001


Port Ewen 3
Top
9-27-22
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 3
9-27-22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 2
Top
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Top
Bottom
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Port Ewen 4
9.27.22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 5
Top
9.27.22
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 5
Top
9-27-22
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 5
Top
9.27.22
Bottom
CHPE Hudson River
Proj#
24711.001

Attachment E

Rhinebeck Sediment Cores

Laboratory Results

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project 24711.001 Task 10
Workorder 3266431
Report ID 209978 on 11/30/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 30, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3266431001	Rhineback 1A	Solid	09/29/2022 12:30	09/30/2022 08:30	CBC	Collected By Client
3266431002	Rhineback 1B	Solid	09/29/2022 12:40	09/30/2022 08:30	CBC	Collected By Client
3266431003	Rhineback 2A	Solid	09/29/2022 11:50	09/30/2022 08:30	CBC	Collected By Client
3266431004	Rhineback 2B	Solid	09/29/2022 12:00	09/30/2022 08:30	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

P1 See attached subcontract Dioxin results from ALS Houston. SLW 11/30/2022

Sample Notations

Lab ID	Sample ID		
3266431001	Rhineback 1A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266431002	Rhineback 1B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266431003	Rhineback 2A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266431004	Rhineback 2B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 36% in the bracketing CCV.
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 25% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 24% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 23% in the bracketing CCV.

Detected Results Summary

Client Sample ID	Rhineback 1A	Collected	09/29/2022 12:30
Lab Sample ID	3266431001	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	3.2	mg/kg	2.5	0.85	SW846 6010D	#
Copper, Total	7.6	mg/kg	2.5	0.85	SW846 6010D	#
Lead, Total	6.4	mg/kg	2.5	0.85	SW846 6010D	#
Mercury, Total	0.031J	mg/kg	0.059	0.019	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	71.4	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(a)pyrene	97.2	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(b)fluoranthene	107	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(g,h,i)perylene	54.4J	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(k)fluoranthene	41.0J	ug/kg	61.0	20.7	SW846 8270D	#
Chrysene	72.6	ug/kg	61.0	20.7	SW846 8270D	#
Fluoranthene	151	ug/kg	61.0	20.7	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	75.5	ug/kg	61.0	20.7	SW846 8270D	#
Naphthalene	42.6J	ug/kg	61.0	20.7	SW846 8270D	#
Phenanthrene	85.7	ug/kg	61.0	20.7	SW846 8270D	#
Pyrene	91.9	ug/kg	61.0	20.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	see attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	29.3	%	0.1	0.01	S2540G-11	#
Total Solids	70.7	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhineback 1B	Collected	09/29/2022 12:40
Lab Sample ID	3266431002	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	2.7	mg/kg	2.6	0.88	SW846 6010D	#
Copper, Total	5.0	mg/kg	2.6	0.88	SW846 6010D	#
Lead, Total	5.8	mg/kg	2.6	0.88	SW846 6010D	#
SEMIVOLATILES						
Naphthalene	25.0J	ug/kg	63.7	21.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	see attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	24.5	%	0.1	0.01	S2540G-11	#
Total Solids	75.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhineback 2A	Collected	09/29/2022 11:50
Lab Sample ID	3266431003	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	6.4	mg/kg	3.6	1.2	SW846 6010D	#
Cadmium, Total	0.57J	mg/kg	0.91	0.30	SW846 6010D	#
Copper, Total	26.8	mg/kg	3.6	1.2	SW846 6010D	#
Lead, Total	24.1	mg/kg	3.6	1.2	SW846 6010D	#
Mercury, Total	0.11	mg/kg	0.085	0.027	SW846 7471B	#
SEMIVOLATILES						
Anthracene	35.3J	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(a)anthracene	100	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(a)pyrene	118	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(b)fluoranthene	147	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(g,h,i)perylene	72.3J	ug/kg	89.9	30.6	SW846 8270D	#
Benzo(k)fluoranthene	49.1J	ug/kg	89.9	30.6	SW846 8270D	#
Chrysene	116	ug/kg	89.9	30.6	SW846 8270D	#
Fluoranthene	250	ug/kg	89.9	30.6	SW846 8270D	#
Naphthalene	43.3J	ug/kg	89.9	30.6	SW846 8270D	#
Phenanthrene	125	ug/kg	89.9	30.6	SW846 8270D	#
Pyrene	178	ug/kg	89.9	30.6	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	see attached	ug/L			EPA 1613B	#
VOLATILE ORGANICS						
Toluene	2.0J	ug/kg	3.0	0.99	SW846 8260C	#
WET CHEMISTRY						
Moisture	47.5	%	0.1	0.01	S2540G-11	#
Total Solids	52.5	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhineback 2B	Collected	09/29/2022 12:00
Lab Sample ID	3266431004	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	9.2	mg/kg	3.2	1.1	SW846 6010D	#
Cadmium, Total	0.90	mg/kg	0.79	0.26	SW846 6010D	#
Copper, Total	42.2	mg/kg	3.2	1.1	SW846 6010D	#
Lead, Total	46.7	mg/kg	3.2	1.1	SW846 6010D	#
Mercury, Total	0.44	mg/kg	0.082	0.026	SW846 7471B	#
SEMIVOLATILES						
Acenaphthene	40.1J	ug/kg	77.4	26.3	SW846 8270D	#
Acenaphthylene	49.9J	ug/kg	77.4	26.3	SW846 8270D	#
Anthracene	131	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(a)anthracene	250	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(a)pyrene	362	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(b)fluoranthene	464	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(g,h,i)perylene	206	ug/kg	77.4	26.3	SW846 8270D	#
Benzo(k)fluoranthene	132	ug/kg	77.4	26.3	SW846 8270D	#
Chrysene	413	ug/kg	77.4	26.3	SW846 8270D	#
Dibenzo(a,h)anthracene	49.7J	ug/kg	77.4	26.3	SW846 8270D	#
Fluoranthene	869	ug/kg	77.4	26.3	SW846 8270D	#
Fluorene	61.8J	ug/kg	77.4	26.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	246	ug/kg	77.4	26.3	SW846 8270D	#
Naphthalene	166	ug/kg	77.4	26.3	SW846 8270D	#
Phenanthrene	710	ug/kg	77.4	26.3	SW846 8270D	#
Pyrene	635	ug/kg	77.4	26.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	see attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	39.0	%	0.1	0.01	S2540G-11	#
Total Solids	61.0	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	Rhineback 1A	Collected	09/29/2022 12:30
Lab Sample ID	3266431001	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	3.2	P1,S1	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:35	A1S	A1
Cadmium, Total	ND	ND,P1,S1	mg/kg	0.63	0.21	SW846 6010D	1	10/19/2022 14:35	A1S	A1
Copper, Total	7.6	P1,S1	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:35	A1S	A1
Lead, Total	6.4	P1,S1	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:35	A1S	A1
Mercury, Total	0.031J	J,P1,S1	mg/kg	0.059	0.019	SW846 7471B	1	10/07/2022 10:52	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,1,P1,S1	ug/kg	11.6	7.5	SW846 8081B	5	10/05/2022 22:06	KJH	A
4,4'-DDE	ND	ND,2,P1,S1	ug/kg	11.6	3.8	SW846 8081B	5	10/05/2022 22:06	KJH	A
4,4'-DDT	ND	ND,P1,S1	ug/kg	11.6	3.4	SW846 8081B	5	10/05/2022 22:06	KJH	A
Chlordane	ND	ND,P1,S1	ug/kg	239	40.4	SW846 8081B	5	10/05/2022 22:06	KJH	A
Dieldrin	ND	ND,P1,S1	ug/kg	11.6	4.5	SW846 8081B	5	10/05/2022 22:06	KJH	A
Mirex	ND	ND,P1,S1	ug/kg	11.6	3.6	SW846 8081B	5	10/05/2022 22:06	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	63.1%	30 – 135	10/05/2022 22:06	
Tetrachloro-m-xylene	877-09-8	71.6%	30 – 111	10/05/2022 22:06	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Acenaphthylene	ND	ND,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Anthracene	ND	ND,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Benzo(a)anthracene	71.4	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Benzo(a)pyrene	97.2	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Benzo(b)fluoranthene	107	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Benzo(g,h,i)perylene	54.4J	J,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Benzo(k)fluoranthene	41.0J	J,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Chrysene	72.6	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Dibenzo(a,h)anthracene	ND	ND,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Fluoranthene	151	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Fluorene	ND	ND,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Indeno(1,2,3-cd)pyrene	75.5	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Naphthalene	42.6J	J,P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Phenanthrene	85.7	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A
Pyrene	91.9	P1,S1	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 08:31	S7M	A

Results

Client Sample ID	Rhineback 1A	Collected	09/29/2022 12:30
Lab Sample ID	3266431001	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	60.5%	19 – 132	10/03/2022 08:31	
2-Fluorobiphenyl	321-60-8	67.2%	40 – 110	10/03/2022 08:31	
2-Fluorophenol	367-12-4	68.4%	26 – 116	10/03/2022 08:31	
Nitrobenzene-d5	4165-60-0	72.4%	38 – 112	10/03/2022 08:31	
Phenol-d5	4165-62-2	69.7%	35 – 111	10/03/2022 08:31	
Terphenyl-d14	98904-43-9	68.5%	45 – 126	10/03/2022 08:31	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	see attached	P1,S1	ug/L			EPA 1613B	1	11/30/2022 12:01	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,P1,S1	ug/kg	2.9	0.72	SW846 8260C	1	10/01/2022 00:40	VLM	D
Ethylbenzene	ND	ND,P1,S1	ug/kg	2.9	0.97	SW846 8260C	1	10/01/2022 00:40	VLM	D
Toluene	ND	ND,P1,S1	ug/kg	2.9	0.96	SW846 8260C	1	10/01/2022 00:40	VLM	D
Total Xylenes	ND	ND,P1,S1	ug/kg	8.6	2.0	SW846 8260C	1	10/01/2022 00:40	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.7%	56 – 124	10/01/2022 00:40	
4-Bromofluorobenzene	460-00-4	106%	51 – 128	10/01/2022 00:40	
Dibromofluoromethane	1868-53-7	106%	62 – 123	10/01/2022 00:40	
Toluene-d8	2037-26-5	96.9%	59 – 131	10/01/2022 00:40	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	29.3	P1,S1	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	70.7	P1,S1	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhineback 1B	Collected	09/29/2022 12:40
Lab Sample ID	3266431002	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	2.7	P1,S2	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:40	A1S	A1
Cadmium, Total	ND	ND,P1,S2	mg/kg	0.66	0.22	SW846 6010D	1	10/19/2022 14:40	A1S	A1
Copper, Total	5.0	P1,S2	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:40	A1S	A1
Lead, Total	5.8	P1,S2	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:40	A1S	A1
Mercury, Total	ND	ND,P1,S2	mg/kg	0.057	0.018	SW846 7471B	1	10/07/2022 10:54	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,1,P1,S2	ug/kg	10.8	7.0	SW846 8081B	5	10/05/2022 22:16	KJH	A
4,4'-DDE	ND	ND,2,P1,S2	ug/kg	10.8	3.5	SW846 8081B	5	10/05/2022 22:16	KJH	A
4,4'-DDT	ND	ND,P1,S2	ug/kg	10.8	3.1	SW846 8081B	5	10/05/2022 22:16	KJH	A
Chlordane	ND	ND,P1,S2	ug/kg	222	37.3	SW846 8081B	5	10/05/2022 22:16	KJH	A
Dieldrin	ND	ND,P1,S2	ug/kg	10.8	4.2	SW846 8081B	5	10/05/2022 22:16	KJH	A
Mirex	ND	ND,P1,S2	ug/kg	10.8	3.4	SW846 8081B	5	10/05/2022 22:16	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	70.6%	30 – 135	10/05/2022 22:16	
Tetrachloro-m-xylene	877-09-8	78.6%	30 – 111	10/05/2022 22:16	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Acenaphthylene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Anthracene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Benzo(a)anthracene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Benzo(a)pyrene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Benzo(b)fluoranthene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Benzo(g,h,i)perylene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Benzo(k)fluoranthene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Chrysene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Dibenzo(a,h)anthracene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Fluoranthene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Fluorene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Naphthalene	25.0J	J,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A
Phenanthrene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A

Results

Client Sample ID	Rhineback 1B	Collected	09/29/2022 12:40
Lab Sample ID	3266431002	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Pyrene	ND	ND,P1,S2	ug/kg	63.7	21.7	SW846 8270D	1	10/03/2022 08:57	S7M	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	69.7%	19 – 132	10/03/2022 08:57	
2-Fluorobiphenyl	321-60-8	83.6%	40 – 110	10/03/2022 08:57	
2-Fluorophenol	367-12-4	80.1%	26 – 116	10/03/2022 08:57	
Nitrobenzene-d5	4165-60-0	86.2%	38 – 112	10/03/2022 08:57	
Phenol-d5	4165-62-2	79.9%	35 – 111	10/03/2022 08:57	
Terphenyl-d14	98904-43-9	78.1%	45 – 126	10/03/2022 08:57	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	see attached	P1,S2	ug/L			EPA 1613B	1	11/30/2022 12:02	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,P1,S2	ug/kg	2.2	0.55	SW846 8260C	1	10/01/2022 01:04	VLM	D
Ethylbenzene	ND	ND,P1,S2	ug/kg	2.2	0.75	SW846 8260C	1	10/01/2022 01:04	VLM	D
Toluene	ND	ND,P1,S2	ug/kg	2.2	0.74	SW846 8260C	1	10/01/2022 01:04	VLM	D
Total Xylenes	ND	ND,P1,S2	ug/kg	6.7	1.6	SW846 8260C	1	10/01/2022 01:04	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.6%	56 – 124	10/01/2022 01:04	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	10/01/2022 01:04	
Dibromofluoromethane	1868-53-7	106%	62 – 123	10/01/2022 01:04	
Toluene-d8	2037-26-5	96.1%	59 – 131	10/01/2022 01:04	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	24.5	P1,S2	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	75.5	P1,S2	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhineback 2A	Collected	09/29/2022 11:50
Lab Sample ID	3266431003	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	6.4	P1,S3	mg/kg	3.6	1.2	SW846 6010D	1	10/19/2022 14:43	A1S	A1
Cadmium, Total	0.57J	J,P1,S3	mg/kg	0.91	0.30	SW846 6010D	1	10/19/2022 14:43	A1S	A1
Copper, Total	26.8	P1,S3	mg/kg	3.6	1.2	SW846 6010D	1	10/19/2022 14:43	A1S	A1
Lead, Total	24.1	P1,S3	mg/kg	3.6	1.2	SW846 6010D	1	10/19/2022 14:43	A1S	A1
Mercury, Total	0.11	P1,S3	mg/kg	0.085	0.027	SW846 7471B	1	10/07/2022 10:55	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,1,P1,S3	ug/kg	16.0	10.3	SW846 8081B	5	10/06/2022 20:59	KJH	A
4,4'-DDE	ND	ND,3,P1,S3	ug/kg	16.0	5.2	SW846 8081B	5	10/06/2022 20:59	KJH	A
4,4'-DDT	ND	ND,P1,S3	ug/kg	16.0	4.6	SW846 8081B	5	10/06/2022 20:59	KJH	A
Chlordane	ND	ND,P1,S3	ug/kg	329	55.5	SW846 8081B	5	10/06/2022 20:59	KJH	A
Dieldrin	ND	ND,4,P1,S3	ug/kg	16.0	6.2	SW846 8081B	5	10/06/2022 20:59	KJH	A
Mirex	ND	ND,P1,S3	ug/kg	16.0	5.0	SW846 8081B	5	10/06/2022 20:59	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	70.2%	30 – 135	10/06/2022 20:59	
Tetrachloro-m-xylene	877-09-8	68.5%	30 – 111	10/06/2022 20:59	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Acenaphthylene	ND	ND,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Anthracene	35.3J	J,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Benzo(a)anthracene	100	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Benzo(a)pyrene	118	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Benzo(b)fluoranthene	147	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Benzo(g,h,i)perylene	72.3J	J,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Benzo(k)fluoranthene	49.1J	J,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Chrysene	116	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Dibenzo(a,h)anthracene	ND	ND,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Fluoranthene	250	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Fluorene	ND	ND,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Naphthalene	43.3J	J,P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Phenanthrene	125	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A
Pyrene	178	P1,S3	ug/kg	89.9	30.6	SW846 8270D	1	10/03/2022 09:22	S7M	A

Results

Client Sample ID	Rhineback 2A	Collected	09/29/2022 11:50
Lab Sample ID	3266431003	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	59.9%	19 – 132	10/03/2022 09:22	
2-Fluorobiphenyl	321-60-8	57.3%	40 – 110	10/03/2022 09:22	
2-Fluorophenol	367-12-4	48%	26 – 116	10/03/2022 09:22	
Nitrobenzene-d5	4165-60-0	53.8%	38 – 112	10/03/2022 09:22	
Phenol-d5	4165-62-2	50.5%	35 – 111	10/03/2022 09:22	
Terphenyl-d14	98904-43-9	73.1%	45 – 126	10/03/2022 09:22	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	see attached	P1,S3	ug/L			EPA 1613B	1	11/30/2022 12:02	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,P1,S3	ug/kg	3.0	0.74	SW846 8260C	1	10/01/2022 00:15	VLM	D
Ethylbenzene	ND	ND,P1,S3	ug/kg	3.0	1.0	SW846 8260C	1	10/01/2022 00:15	VLM	D
Toluene	2.0J	J,P1,S3	ug/kg	3.0	0.99	SW846 8260C	1	10/01/2022 00:15	VLM	D
Total Xylenes	ND	ND,P1,S3	ug/kg	8.9	2.1	SW846 8260C	1	10/01/2022 00:15	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.1%	56 – 124	10/01/2022 00:15	
4-Bromofluorobenzene	460-00-4	99.5%	51 – 128	10/01/2022 00:15	
Dibromofluoromethane	1868-53-7	104%	62 – 123	10/01/2022 00:15	
Toluene-d8	2037-26-5	97.5%	59 – 131	10/01/2022 00:15	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	47.5	P1,S3	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	52.5	P1,S3	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhineback 2B	Collected	09/29/2022 12:00
Lab Sample ID	3266431004	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	9.2	P1,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/19/2022 14:44	A1S	A1
Cadmium, Total	0.90	P1,S4	mg/kg	0.79	0.26	SW846 6010D	1	10/19/2022 14:44	A1S	A1
Copper, Total	42.2	P1,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/19/2022 14:44	A1S	A1
Lead, Total	46.7	P1,S4	mg/kg	3.2	1.1	SW846 6010D	1	10/19/2022 14:44	A1S	A1
Mercury, Total	0.44	P1,S4	mg/kg	0.082	0.026	SW846 7471B	1	10/07/2022 10:56	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,1,P1,S4	ug/kg	13.8	8.9	SW846 8081B	5	10/06/2022 21:09	KJH	A
4,4'-DDE	ND	ND,3,P1,S4	ug/kg	13.8	4.5	SW846 8081B	5	10/06/2022 21:09	KJH	A
4,4'-DDT	ND	ND,P1,S4	ug/kg	13.8	4.0	SW846 8081B	5	10/06/2022 21:09	KJH	A
Chlordane	ND	ND,P1,S4	ug/kg	283	47.7	SW846 8081B	5	10/06/2022 21:09	KJH	A
Dieldrin	ND	ND,4,P1,S4	ug/kg	13.8	5.3	SW846 8081B	5	10/06/2022 21:09	KJH	A
Mirex	ND	ND,P1,S4	ug/kg	13.8	4.3	SW846 8081B	5	10/06/2022 21:09	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	79.2%	30 – 135	10/06/2022 21:09	
Tetrachloro-m-xylene	877-09-8	72.9%	30 – 111	10/06/2022 21:09	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	40.1J	J,P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Acenaphthylene	49.9J	J,P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Anthracene	131	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Benzo(a)anthracene	250	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Benzo(a)pyrene	362	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Benzo(b)fluoranthene	464	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Benzo(g,h,i)perylene	206	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Benzo(k)fluoranthene	132	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Chrysene	413	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Dibenzo(a,h)anthracene	49.7J	J,P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Fluoranthene	869	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Fluorene	61.8J	J,P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Indeno(1,2,3-cd)pyrene	246	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Naphthalene	166	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Phenanthrene	710	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A
Pyrene	635	P1,S4	ug/kg	77.4	26.3	SW846 8270D	1	10/03/2022 09:47	S7M	A

Results

Client Sample ID	Rhineback 2B	Collected	09/29/2022 12:00
Lab Sample ID	3266431004	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	63.9%	19 – 132	10/03/2022 09:47	
2-Fluorobiphenyl	321-60-8	69.8%	40 – 110	10/03/2022 09:47	
2-Fluorophenol	367-12-4	58.7%	26 – 116	10/03/2022 09:47	
Nitrobenzene-d5	4165-60-0	64.4%	38 – 112	10/03/2022 09:47	
Phenol-d5	4165-62-2	64%	35 – 111	10/03/2022 09:47	
Terphenyl-d14	98904-43-9	74.4%	45 – 126	10/03/2022 09:47	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	see attached	P1,S4	ug/L			EPA 1613B	1	11/30/2022 12:02	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,P1,S4	ug/kg	3.1	0.78	SW846 8260C	1	10/01/2022 01:29	VLM	D
Ethylbenzene	ND	ND,P1,S4	ug/kg	3.1	1.1	SW846 8260C	1	10/01/2022 01:29	VLM	D
Toluene	ND	ND,P1,S4	ug/kg	3.1	1.0	SW846 8260C	1	10/01/2022 01:29	VLM	D
Total Xylenes	ND	ND,P1,S4	ug/kg	9.4	2.2	SW846 8260C	1	10/01/2022 01:29	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95%	56 – 124	10/01/2022 01:29	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	10/01/2022 01:29	
Dibromofluoromethane	1868-53-7	104%	62 – 123	10/01/2022 01:29	
Toluene-d8	2037-26-5	96.3%	59 – 131	10/01/2022 01:29	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	39.0	P1,S4	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	61.0	P1,S4	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3266431001	Rhineback 1A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266431002	Rhineback 1B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266431003	Rhineback 2A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266431004	Rhineback 2B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3266431001	Rhineback 1A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	886779	10/05/2022 14:00	JSE	SW846 6010D	891527
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 12:30	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266431002	Rhineback 1B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 12:40	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266431003	Rhineback 2A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 11:50	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266431004	Rhineback 2B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 12:00	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3266431
ALS Quote #: 704
Logged By: CXW
PM: SSL

Client Name: Normandeau Assoc.
Address: 400 Old Reading Pike
Stowe, PA 19464

Contact: Don Nazario
Phone#: 717-617-7076
Project Name/#: 24711.001, Task 10
Bill To: Normandeau
Purchase Order #: 24711.001
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X]-Y DNazario@Normandeau.com

	Container Type	VOA	GL	GL						
	Container Size	40ml	8oz	8oz						
	Preservative	MeOH	-	-						

Unless otherwise Indicated, preservation indicates field filtration on applicable methods

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs, % moist	Metals, PAHs Pest	Dioxin						
							Enter Number of Containers Per Sample or Field Results Below.								
1	Rhinebeck 1A	9/29/22	1230		G	W	4	1	1						
2	1B	"	1240		"	"	4	1	1						
3	2A	"	1150		"	"	4	1	1						
4	2B	"	1200		"	"	4	1	1						
5															
6															
7															
8															
9															
10															

Circle Sample Collector: ALS Tech / Client ID:

Comments:

Receipt Information
Temp Taken By: KSB Therm ID: 570 WO Temp (°C) 5
Receipt Info completed by: KSB
WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA	Deviations? NO YES
Sample Custody Seal Intact	Y	N	NA	If YES, list below:
Received on Ice	Y	N	NA	
Coolers & Samples Intact	Y	N		
Correct Containers Provided	Y	N		
Sample Label/COC Agree	Y	N		
Adequate Sample Volumes	Y	N		
VOA only: Headspace Present	Y	N	NA	
VOA only: Trip Blank	Y	N	NA	Client contact:

NJ ≤ 4 days? Y N
Date/Tech:
Courier/Tracking #: 7700 5204 7549

Sample(s) for Radiation testing? Y N Rad Screen (uCi)
Reportable SDWA Sample(s)? Y N New Source? Y N
SDWA State of Origin? New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks
TerraCore kit: 1x G/MeOH, 2x G/DI, 1x G/UNP, 2x G/UNP — Per Sample

Contains Short Hold Testing YES (NO)
Internal Use: If less than 48 hours - notify lab upon receipt

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/29/22	1500	1	DNazario/Normandeau	2	Fedex
9.30.22	830	3	Fedex	4	
		5		6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] ____

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other ____

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 7.19.22

November 30, 2022 Service Request No:E2200962

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3266431

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 05, 2022
For your reference, these analyses have been assigned our service request number **E2200962.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - Middletown	**Service Request No.:**	E2200962
Project:	3266431	**Date Received:**	10/05/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Four samples were received for analysis at ALS Environmental in Houston on 10/05/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200475: Laboratory Control Spike (LCS) sample was analyzed and reported in addition to a MS/MSD for this extraction batch.

The batch precision (MS/DMS) measurements were determined on an unrelated sample in the extraction batch. The MS/DMS results are not included in this report.

B flags – Method Blanks

The Method Blank EQ2200475-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Client: ALS Environmental - Middletown **Service Request:**E2200962
Project: 3266431

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200962-001	3266431-001 Rhinebeck 1A	9/29/2022	1230
E2200962-002	3266431-002 Rhinebeck 1B	9/29/2022	1240
E2200962-003	3266431-003 Rhinebeck 2A	9/29/2022	1150
E2200962-004	3266431-004 Rhinebeck 2B	9/29/2022	1200

Service Request Summary

Folder #: **E2200962**
Client Name: ALS Environmental - Middletown
Project Name: 3266431
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 10/05/22
Internal Due Date: 11/9/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3266431
EDD: BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200962-001	3266431-001 Rhinebeck 1A	Soil	09/29/22 1230	II	II
E2200962-002	3266431-002 Rhinebeck 1B	Soil	09/29/22 1240	II	II
E2200962-003	3266431-003 Rhinebeck 2A	Soil	09/29/22 1150	II	II
E2200962-004	3266431-004 Rhinebeck 2B	Soil	09/29/22 1200	II	II

Service Request Summary

Folder #:	**E2200962**
Client Name:	ALS Environmental - Middletown
Project Name:	3266431
Project Number:	

Report To:	Sarah Leung ALS Environmental - Middletown 301 Fulling Mill Road Middletown, PA 17057 USA
Phone Number:	717-944-5541
Cell Number:	
Fax Number:	
E-mail:	sarah.leung@alsglobal.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	JGUIN
Date Received:	10/05/22
Internal Due Date:	11/9/2022
QAP:	LAB QAP
Qualifier Set:	HRMS Qualifier Set
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	3266431
EDD:	BASIC_WQC_CASNo

4 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Location: EHRMS-WIC 10B

Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22009627 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/29/22	[signature]	001

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/30/22	[signature]	001

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E2200962 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/22/22	YC	002, 003

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/22/22	SL	002, 003

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22009G2 DB-5MSUI SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/18/22	JC	004

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/18/22	SL	004

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
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P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3266431

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #: 3266431

Purchase Order #: ~~3265451~~ SLW 10/4/22

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Container Type	Container Size	Perservative	DIOXIN METHOD 8290	Sample/COC Comments
						G	8oz	None	Enter Number of Containers Per Sample or Field Results Below.	
1	3266431001 Rhinebeck 1A	9/29/22	1230	G	S				1	
2	3266431002 Rhinebeck 1B	9/29/22	1240	G	S				1	
3	3266431003 Rhinebeck 2A	9/29/22	1150	G	S				1	
4	3266431004 **Rhinebeck 2B**	9/29/22	1200	G	S				1	
5										
6										
7										
8										
9										
10										

UC-
Blue 1.6°
#51
CF: -0.2°

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	10/4/22	1600	2 AIS	10/5/22	10:10
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD

Reportable to PADEP? Yes [ ] No [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

other

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

Cooler Receipt Form

ALS Environmental

Project Chemist _____

Client/Project ALS M

Thermometer ID IR31

Date/Time Received: 10/5/22 1010 Initials: JG

Date/Time Logged in: 10/5/22 1300 Initials JG.

1. Method of delivery: ○ US Mail ✓ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client
2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other _____
3. Were custody seals on coolers? ○ Yes ✓ No
   Were they intact? ○ Yes ○ No ✓ N/A
   Were they signed and dated? ○ Yes ○ No ✓ N/A
   If yes, how many and where?
4. Packing Material: ○ Inserts ✓ Baggies ✓ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other _____
5. Foreign or Regulated Soil? ○ Yes ✓ No Location of Sampling: _____

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 6201		10/5/22	1010	CG	1.6	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

11/30/2022 12:21 PM

Prep Run#: 408315 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:46

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200962-001	3266431-001 Rhinebeck 1A	.01	8290A/PCDD PCDF			Soil	10.361g	dark mud
2	E2200962-002	3266431-002 Rhinebeck 1B	.01	8290A/PCDD PCDF			Soil	10.385g	dark mud
3	E2200962-003	3266431-003 Rhinebeck 2A	.01	8290A/PCDD PCDF			Soil	10.020g	dark mud
4	E2200962-004	3266431-004 Rhinebeck 2B	.01	8290A/PCDD PCDF			Soil	10.001g	dark mud
5	E2200963-001	3266432-001 (Rhinebeck 3A)	.01	8290A/PCDD PCDF			Soil	10.112g	dark mud and water
6	E2200963-002	3266432-002 (Rhinebeck 3B)	.01	8290A/PCDD PCDF			Soil	10.211g	dark mud and water
7	E2200963-003	3266432-003 (Rhinebeck 4A)	.01	8290A/PCDD PCDF			Soil	10.226g	dark mud and water
8	E2200963-004	3266432-004 (Rhinebeck 4B)	.01	8290A/PCDD PCDF			Soil	10.000g	dark mud and water
9	E2200963-005	3266432-005 (Rhinebeck 5A)	.01	8290A/PCDD PCDF			Soil	10.006g	dark mud and water
10	E2200963-006	3266432-006 (Rhinebeck 5B)	.01	8290A/PCDD PCDF			Soil	10.000g	dark mud and water
11	E2200969-001	2131544	.01	8290/PCDD PCDF			Soil	10.229g	dark sand and rocks
12	E2200969-002	2131545	.01	8290/PCDD PCDF			Soil	10.312g	dark sand and rocks
13	E2200969-003	2131546	.01	8290/PCDD PCDF			Soil	10.114g	dark soil
14	EQ2200475-01	MB		8290A/PCDD PCDF			Solid	10.000g	
15	EQ2200475-02	LCS		8290A/PCDD PCDF			Solid	10.000g	
16	EQ2200475-03	2131546 MS	.01	8290/PCDD PCDF			Solid	10.614g	
17	EQ2200475-04	2131546 DMS	.01	8290/PCDD PCDF			Solid	10.136g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200475-02	100.00µL	EQ2200475-02	100.00µL	EQ2200475-03	100.00µL	EQ2200475-04	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200962-001	100.00µL	E2200962-002	100.00µL	E2200962-003	100.00µL	E2200962-004	100.00µL	E2200963-001	100.00µL	E2200963-002	100.00µL
E2200963-003	100.00µL	E2200963-004	100.00µL	E2200963-005	100.00µL	E2200963-006	100.00µL	E2200969-001	100.00µL	E2200969-002	100.00µL
E2200969-003	100.00µL	EQ2200475-01	100.00µL	EQ2200475-01	100.00µL	EQ2200475-02	100.00µL	EQ2200475-02	100.00µL	EQ2200475-03	100.00µL
EQ2200475-04	100.00µL										

Name: 1613B Labeled Working Standard Inventory ID 225503 Logbook Ref: BF 10/17/2022 225503 Expires On: 04/10/2023

E2200962-001	1,000.00µL	E2200962-002	1,000.00µL	E2200962-003	1,000.00µL	E2200962-004	1,000.00µL	E2200963-001	1,000.00µL	E2200963-002	1,000.00µL
E2200963-003	1,000.00µL	E2200963-004	1,000.00µL	E2200963-005	1,000.00µL	E2200963-006	1,000.00µL	E2200969-001	1,000.00µL	E2200969-002	1,000.00µL
E2200969-003	1,000.00µL	EQ2200475-01	1,000.00µL	EQ2200475-01	1,000.00µL	EQ2200475-02	1,000.00µL	EQ2200475-02	1,000.00µL	EQ2200475-03	1,000.00µL
EQ2200475-04	1,000.00µL										

Preparation Information Benchsheet

Prep Run#: 408315 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:46

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:46	Started:	10/25/22 10:00	Started:	10/25/22 12:00	Started:	10/26/22 11:00
Finished:	10/19/22 09:00	Finished:	10/25/22 11:00	Finished:	10/25/22 15:00	Finished:	10/26/22 14:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: TW Date: 10/18/22

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-001 Rhinebeck 1A	**Units:**	ng/Kg
Lab Code:	E2200962-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 17:14
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540052	**Blank File Name:**	p540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540041

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.420	0.760			1
1,2,3,7,8-PeCDD	ND	U	0.169	3.80			1
1,2,3,6,7,8-HxCDD	ND	U	0.151	3.80			1
1,2,3,4,7,8-HxCDD	ND	U	0.171	3.80			1
1,2,3,7,8,9-HxCDD	ND	U	0.160	3.80			1
1,2,3,4,6,7,8-HpCDD	0.891**JK**		0.114	3.80	1.47	1.000	1
OCDD	14.4		0.752	7.60	1.01	1.000	1
2,3,7,8-TCDF	ND	U	0.330	0.760			1
1,2,3,7,8-PeCDF	ND	U	0.165	3.80			1
2,3,4,7,8-PeCDF	ND	U	0.157	3.80			1
1,2,3,6,7,8-HxCDF	ND	U	0.0864	3.80			1
1,2,3,7,8,9-HxCDF	ND	U	0.111	3.80			1
1,2,3,4,7,8-HxCDF	0.153**J**		0.0808	3.80	1.35	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.0703	3.80			1
1,2,3,4,6,7,8-HpCDF	0.413**J**		0.155	3.80	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.179	3.80			1
OCDF	0.837**JK**		0.363	7.60	0.69	1.004	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-001 Rhinebeck 1A	**Units:**	ng/Kg
Lab Code:	E2200962-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 17:14
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540052	**Blank File Name:**	p540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540041

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.420	0.760			1
Total Penta-Dioxins	ND	U	0.169	3.80			1
Total Hexa-Dioxins	ND	U	0.160	3.80			1
Total Hepta-Dioxins	0.920**J**		0.114	3.80	1.00		1
Total Tetra-Furans	ND	U	0.330	0.760			1
Total Penta-Furans	ND	U	0.161	3.80			1
Total Hexa-Furans	0.153**J**		0.0850	3.80	1.35		1
Total Hepta-Furans	0.413**J**		0.167	3.80	0.98		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-001 Rhinebeck 1A	**Units:**	Percent
Lab Code:	E2200962-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 17:14
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.361g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540052	**Blank File Name:**	p540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540041

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	654.819	33	**Y**	40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	785.560	39	**Y**	40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	941.571	47		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1067.133	53		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	944.372	47		40-135	1.05	1.068
13C-OCDD	4000	1269.593	32	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	512.865	26	**Y**	40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	684.054	34	**Y**	40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	702.596	35	**Y**	40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	941.693	47		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	870.366	44		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	863.582	43		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1147.282	57		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	744.955	37	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	838.289	42		40-135	0.44	1.081
37Cl-2,3,7,8-TCDD	800	233.662	29	**Y**	40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-001 Rhinebeck 1A	**Units:**	ng/Kg
Lab Code:	E2200962-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.420	0.760	1	1	
1,2,3,7,8-PeCDD	ND	0.169	3.80	1	1	
1,2,3,6,7,8-HxCDD	ND	0.151	3.80	1	0.1	
1,2,3,4,7,8-HxCDD	ND	0.171	3.80	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.160	3.80	1	0.1	
1,2,3,4,6,7,8-HpCDD	**0.891**	0.114	3.80	1	0.01	0.00891
OCDD	**14.4**	0.752	7.60	1	0.0003	0.00432
2,3,7,8-TCDF	ND	0.330	0.760	1	0.1	
1,2,3,7,8-PeCDF	ND	0.165	3.80	1	0.03	
2,3,4,7,8-PeCDF	ND	0.157	3.80	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.0864	3.80	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.111	3.80	1	0.1	
1,2,3,4,7,8-HxCDF	**0.153**	0.0808	3.80	1	0.1	0.0153
2,3,4,6,7,8-HxCDF	ND	0.0703	3.80	1	0.1	
1,2,3,4,6,7,8-HpCDF	**0.413**	0.155	3.80	1	0.01	0.00413
1,2,3,4,7,8,9-HpCDF	ND	0.179	3.80	1	0.01	
OCDF	**0.837**	0.363	7.60	1	0.0003	0.000251
		Total TEQ				0.0329

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:30
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-001 Rhinebeck 1A	**Units:**	Percent
Lab Code:	E2200962-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	8.5433g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.5		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-002 Rhinebeck 1B	**Units:**	ng/Kg
Lab Code:	E2200962-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 00:45
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.385g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540061	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0874	0.639			1
1,2,3,7,8-PeCDD	ND	U	0.0956	3.20			1
1,2,3,6,7,8-HxCDD	0.0398**BJK**		0.0206	3.20	2.37	1.000	1
1,2,3,4,7,8-HxCDD	0.178**BJK**		0.0237	3.20	1.92	1.001	1
1,2,3,7,8,9-HxCDD	0.0904**BJK**		0.0220	3.20	0.96	1.006	1
1,2,3,4,6,7,8-HpCDD	0.907**BJ**		0.0818	3.20	1.14	1.000	1
OCDD	16.4**B**		0.376	6.39	0.77	1.000	1
2,3,7,8-TCDF	ND	U	0.133	0.639			1
1,2,3,7,8-PeCDF	ND	U	0.108	3.20			1
2,3,4,7,8-PeCDF	ND	U	0.109	3.20			1
1,2,3,6,7,8-HxCDF	0.0318**BJK**		0.00755	3.20	0.79	1.000	1
1,2,3,7,8,9-HxCDF	0.0963**BJK**		0.00998	3.20	0.87	1.001	1
1,2,3,4,7,8-HxCDF	0.0354**BJK**		0.00704	3.20	0.71	1.000	1
2,3,4,6,7,8-HxCDF	0.0481**BJ**		0.00653	3.20	1.24	1.000	1
1,2,3,4,6,7,8-HpCDF	0.221**BJK**		0.00653	3.20	0.70	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0678**BJK**		0.00781	3.20	0.39	1.000	1
OCDF	0.721**BJK**		0.281	6.39	0.64	1.006	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-002 Rhinebeck 1B	**Units:**	ng/Kg
Lab Code:	E2200962-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 00:45
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.385g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540061	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.139**J**		0.0874	0.639	0.86		1
Total Penta-Dioxins	ND	U	0.0956	3.20			1
Total Hexa-Dioxins	0.304**J**		0.0220	3.20	1.37		1
Total Hepta-Dioxins	1.03**J**		0.0818	3.20	1.08		1
Total Tetra-Furans	ND	U	0.133	0.639			1
Total Penta-Furans	ND	U	0.108	3.20			1
Total Hexa-Furans	0.109**J**		0.00755	3.20	1.24		1
Total Hepta-Furans	0.322**J**		0.00717	3.20	1.12		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-002 Rhinebeck 1B	**Units:**	Percent
Lab Code:	E2200962-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 00:45
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.385g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540061	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1162.251	58		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	1015.877	51		40-135	1.55	1.207
13C-1,2,3,4,7,8-HxCDD	2000	969.244	48		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1149.854	57		40-135	1.25	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	894.862	45		40-135	1.06	1.068
13C-OCDD	4000	1132.787	28	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1005.094	50		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	988.148	49		40-135	1.61	1.161
13C-2,3,4,7,8-PeCDF	2000	939.288	47		40-135	1.60	1.197
13C-1,2,3,4,7,8-HxCDF	2000	1065.152	53		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	973.424	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	919.950	46		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1204.900	60		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	715.933	36	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	825.737	41		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	447.988	56		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-002 Rhinebeck 1B	**Units:**	ng/Kg
Lab Code:	E2200962-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0874	0.639	1	1	
1,2,3,7,8-PeCDD	ND	0.0956	3.20	1	1	
1,2,3,6,7,8-HxCDD	**0.0398**	0.0206	3.20	1	0.1	0.00398
1,2,3,4,7,8-HxCDD	**0.178**	0.0237	3.20	1	0.1	0.0178
1,2,3,7,8,9-HxCDD	**0.0904**	0.0220	3.20	1	0.1	0.00904
1,2,3,4,6,7,8-HpCDD	**0.907**	0.0818	3.20	1	0.01	0.00907
OCDD	**16.4**	0.376	6.39	1	0.0003	0.00492
2,3,7,8-TCDF	ND	0.133	0.639	1	0.1	
1,2,3,7,8-PeCDF	ND	0.108	3.20	1	0.03	
2,3,4,7,8-PeCDF	ND	0.109	3.20	1	0.3	
1,2,3,6,7,8-HxCDF	**0.0318**	0.00755	3.20	1	0.1	0.00318
1,2,3,7,8,9-HxCDF	**0.0963**	0.00998	3.20	1	0.1	0.00963
1,2,3,4,7,8-HxCDF	**0.0354**	0.00704	3.20	1	0.1	0.00354
2,3,4,6,7,8-HxCDF	**0.0481**	0.00653	3.20	1	0.1	0.00481
1,2,3,4,6,7,8-HpCDF	**0.221**	0.00653	3.20	1	0.01	0.00221
1,2,3,4,7,8,9-HpCDF	**0.0678**	0.00781	3.20	1	0.01	0.000678
OCDF	**0.721**	0.281	6.39	1	0.0003	0.000216
		Total TEQ				0.0691

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:40
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-002 Rhinebeck 1B	**Units:**	Percent
Lab Code:	E2200962-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.1874g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	75.3		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 11:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-003 Rhinebeck 2A	**Units:**	ng/Kg
Lab Code:	E2200962-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 01:34
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.020g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540062	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.304	0.980			1
1,2,3,7,8-PeCDD	ND	U	0.233	4.90			1
1,2,3,6,7,8-HxCDD	1.40**JK**		0.141	4.90	1.48	1.000	1
1,2,3,4,7,8-HxCDD	0.480**BJK**		0.153	4.90	2.72	1.000	1
1,2,3,7,8,9-HxCDD	1.05**J**		0.147	4.90	1.30	1.007	1
1,2,3,4,6,7,8-HpCDD	34.8		0.446	4.90	1.04	1.000	1
OCDD	457		1.47	9.80	0.91	1.000	1
2,3,7,8-TCDF	ND	U	0.329	0.980			1
1,2,3,7,8-PeCDF	ND	U	0.267	4.90			1
2,3,4,7,8-PeCDF	0.386**JK**		0.265	4.90	1.11	1.001	1
1,2,3,6,7,8-HxCDF	0.465**BJK**		0.0808	4.90	1.01	1.000	1
1,2,3,7,8,9-HxCDF	0.272**BJK**		0.101	4.90	2.49	1.001	1
1,2,3,4,7,8-HxCDF	0.378**JK**		0.0714	4.90	0.65	1.001	1
2,3,4,6,7,8-HxCDF	0.417**J**		0.0675	4.90	1.26	1.000	1
1,2,3,4,6,7,8-HpCDF	6.61**K**		0.114	4.90	0.82	1.000	1
1,2,3,4,7,8,9-HpCDF	0.268**BJK**		0.127	4.90	2.48	1.000	1
OCDF	15.1		0.394	9.80	0.85	1.004	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 11:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-003 Rhinebeck 2A	**Units:**	ng/Kg
Lab Code:	E2200962-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 01:34
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.020g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540062	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.856**J**		0.304	0.980	0.78		1
Total Penta-Dioxins	0.268**J**		0.233	4.90	1.40		1
Total Hexa-Dioxins	7.99		0.147	4.90	1.42		1
Total Hepta-Dioxins	75.4		0.446	4.90	1.08		1
Total Tetra-Furans	7.22		0.329	0.980	0.80		1
Total Penta-Furans	3.66**J**		0.123	4.90	1.52		1
Total Hexa-Furans	6.48		0.0785	4.90	1.08		1
Total Hepta-Furans	10.5		0.120	4.90	0.96		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 11:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-003 Rhinebeck 2A	**Units:**	Percent
Lab Code:	E2200962-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 01:34
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.020g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540062	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	929.324	46		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	808.038	40		40-135	1.60	1.207
13C-1,2,3,4,7,8-HxCDD	2000	786.721	39	**Y**	40-135	1.30	0.991
13C-1,2,3,6,7,8-HxCDD	2000	891.404	45		40-135	1.30	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	788.681	39	**Y**	40-135	1.04	1.068
13C-OCDD	4000	1100.525	28	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	817.596	41		40-135	0.77	0.991
13C-1,2,3,7,8-PeCDF	2000	780.483	39	**Y**	40-135	1.56	1.160
13C-2,3,4,7,8-PeCDF	2000	768.993	38	**Y**	40-135	1.62	1.196
13C-1,2,3,4,7,8-HxCDF	2000	852.985	43		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	765.069	38	**Y**	40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	760.881	38	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	968.026	48		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	648.552	32	**Y**	40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	725.681	36	**Y**	40-135	0.42	1.081
37Cl-2,3,7,8-TCDD	800	395.849	49		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 11:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-003 Rhinebeck 2A	**Units:**	ng/Kg
Lab Code:	E2200962-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.304	0.980	1	1	
1,2,3,7,8-PeCDD	ND	0.233	4.90	1	1	
1,2,3,6,7,8-HxCDD	**1.40**	0.141	4.90	1	0.1	0.140
1,2,3,4,7,8-HxCDD	**0.480**	0.153	4.90	1	0.1	0.0480
1,2,3,7,8,9-HxCDD	**1.05**	0.147	4.90	1	0.1	0.105
1,2,3,4,6,7,8-HpCDD	**34.8**	0.446	4.90	1	0.01	0.348
OCDD	**457**	1.47	9.80	1	0.0003	0.137
2,3,7,8-TCDF	ND	0.329	0.980	1	0.1	
1,2,3,7,8-PeCDF	ND	0.267	4.90	1	0.03	
2,3,4,7,8-PeCDF	**0.386**	0.265	4.90	1	0.3	0.116
1,2,3,6,7,8-HxCDF	**0.465**	0.0808	4.90	1	0.1	0.0465
1,2,3,7,8,9-HxCDF	**0.272**	0.101	4.90	1	0.1	0.0272
1,2,3,4,7,8-HxCDF	**0.378**	0.0714	4.90	1	0.1	0.0378
2,3,4,6,7,8-HxCDF	**0.417**	0.0675	4.90	1	0.1	0.0417
1,2,3,4,6,7,8-HpCDF	**6.61**	0.114	4.90	1	0.01	0.0661
1,2,3,4,7,8,9-HpCDF	**0.268**	0.127	4.90	1	0.01	0.00268
OCDF	**15.1**	0.394	9.80	1	0.0003	0.00453
		Total TEQ				1.12

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 11:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-003 Rhinebeck 2A	**Units:**	Percent
Lab Code:	E2200962-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	6.7888g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	50.9		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-004 Rhinebeck 2B	**Units:**	ng/Kg
Lab Code:	E2200962-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 08:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.001g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540070	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.542	0.836			1
1,2,3,7,8-PeCDD	0.747**JK**		0.257	4.18	1.96	1.001	1
1,2,3,6,7,8-HxCDD	8.19		0.202	4.18	1.10	1.000	1
1,2,3,4,7,8-HxCDD	1.40**BJ**		0.226	4.18	1.15	1.000	1
1,2,3,7,8,9-HxCDD	4.80		0.214	4.18	1.08	1.007	1
1,2,3,4,6,7,8-HpCDD	134		0.730	4.18	1.07	1.000	1
OCDD	1060		6.21	8.36	0.90	1.000	1
2,3,7,8-TCDF	2.02		0.290	0.836	0.79	1.001	1
1,2,3,7,8-PeCDF	0.641**JK**		0.370	4.18	1.27	1.001	1
2,3,4,7,8-PeCDF	1.70**J**		0.384	4.18	1.52	1.001	1
1,2,3,6,7,8-HxCDF	1.79**JK**		0.359	4.18	0.98	1.000	1
1,2,3,7,8,9-HxCDF	0.646**JK**		0.451	4.18	1.50	1.000	1
1,2,3,4,7,8-HxCDF	1.61**J**		0.334	4.18	1.08	1.000	1
2,3,4,6,7,8-HxCDF	1.50**J**		0.305	4.18	1.22	1.000	1
1,2,3,4,6,7,8-HpCDF	86.6		0.652	4.18	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	1.07**JK**		0.771	4.18	0.85	1.000	1
OCDF	66.8		1.05	8.36	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-004 Rhinebeck 2B	**Units:**	ng/Kg
Lab Code:	E2200962-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 08:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.001g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540070	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	2.73		0.542	0.836	0.66		1
Total Penta-Dioxins	7.94		0.257	4.18	1.68		1
Total Hexa-Dioxins	70.9		0.213	4.18	1.27		1
Total Hepta-Dioxins	261		0.730	4.18	1.01		1
Total Tetra-Furans	19.5		0.290	0.836	0.66		1
Total Penta-Furans	17.5		0.105	4.18	1.57		1
Total Hexa-Furans	39.6		0.356	4.18	1.21		1
Total Hepta-Furans	166		0.709	4.18	1.01		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-004 Rhinebeck 2B	**Units:**	Percent
Lab Code:	E2200962-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 08:17
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.001g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540070	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1253.999	63		40-135	0.81	1.023
13C-1,2,3,7,8-PeCDD	2000	1091.826	55		40-135	1.60	1.207
13C-1,2,3,4,7,8-HxCDD	2000	958.429	48		40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1138.857	57		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	932.655	47		40-135	1.07	1.068
13C-OCDD	4000	1342.307	34	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	1067.885	53		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1041.286	52		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	986.522	49		40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1012.450	51		40-135	0.51	0.969
13C-1,2,3,6,7,8-HxCDF	2000	935.531	47		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	951.611	48		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1155.849	58		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	767.625	38	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	841.567	42		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	442.906	55		40-135	NA	1.025

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-004 Rhinebeck 2B	**Units:**	ng/Kg
Lab Code:	E2200962-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.542	0.836	1	1	
1,2,3,7,8-PeCDD	**0.747**	0.257	4.18	1	1	0.747
1,2,3,6,7,8-HxCDD	**8.19**	0.202	4.18	1	0.1	0.819
1,2,3,4,7,8-HxCDD	**1.40**	0.226	4.18	1	0.1	0.140
1,2,3,7,8,9-HxCDD	**4.80**	0.214	4.18	1	0.1	0.480
1,2,3,4,6,7,8-HpCDD	**134**	0.730	4.18	1	0.01	1.34
OCDD	**1060**	6.21	8.36	1	0.0003	0.318
2,3,7,8-TCDF	**2.02**	0.290	0.836	1	0.1	0.202
1,2,3,7,8-PeCDF	**0.641**	0.370	4.18	1	0.03	0.0192
2,3,4,7,8-PeCDF	**1.70**	0.384	4.18	1	0.3	0.510
1,2,3,6,7,8-HxCDF	**1.79**	0.359	4.18	1	0.1	0.179
1,2,3,7,8,9-HxCDF	**0.646**	0.451	4.18	1	0.1	0.0646
1,2,3,4,7,8-HxCDF	**1.61**	0.334	4.18	1	0.1	0.161
2,3,4,6,7,8-HxCDF	**1.50**	0.305	4.18	1	0.1	0.150
1,2,3,4,6,7,8-HpCDF	**86.6**	0.652	4.18	1	0.01	0.866
1,2,3,4,7,8,9-HpCDF	**1.07**	0.771	4.18	1	0.01	0.0107
OCDF	**66.8**	1.05	8.36	1	0.0003	0.0200
		Total TEQ				6.03

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	09/29/22 12:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266431-004 Rhinebeck 2B	**Units:**	Percent
Lab Code:	E2200962-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.7528g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.8		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0483	0.500			1
1,2,3,7,8-PeCDD	ND	U	0.0370	2.50			1
1,2,3,6,7,8-HxCDD	0.0575**JK**		0.0221	2.50	0.96	1.000	1
1,2,3,4,7,8-HxCDD	0.165**J**		0.0251	2.50	1.12	1.000	1
1,2,3,7,8,9-HxCDD	0.0249**JK**		0.0235	2.50	4.45	1.007	1
1,2,3,4,6,7,8-HpCDD	0.407**J**		0.00740	2.50	1.13	1.000	1
OCDD	2.59**J**		0.166	5.00	0.87	1.000	1
2,3,7,8-TCDF	ND	U	0.0404	0.500			1
1,2,3,7,8-PeCDF	ND	U	0.0384	2.50			1
2,3,4,7,8-PeCDF	ND	U	0.0386	2.50			1
1,2,3,6,7,8-HxCDF	0.0614**J**		0.00540	2.50	1.13	1.000	1
1,2,3,7,8,9-HxCDF	0.0537**JK**		0.00700	2.50	2.25	1.001	1
1,2,3,4,7,8-HxCDF	0.0332**JK**		0.00500	2.50	1.50	1.000	1
2,3,4,6,7,8-HxCDF	0.0228**JK**		0.00480	2.50	2.65	1.000	1
1,2,3,4,6,7,8-HpCDF	0.0631**JK**		0.00930	2.50	0.44	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0394**JK**		0.0107	2.50	0.49	1.000	1
OCDF	0.306**JK**		0.0517	5.00	0.63	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0483	0.500			1
Total Penta-Dioxins	ND	U	0.0370	2.50			1
Total Hexa-Dioxins	0.279**J**		0.0235	2.50	1.21		1
Total Hepta-Dioxins	0.407**J**		0.00740	2.50	1.13		1
Total Tetra-Furans	ND	U	0.0404	0.500			1
Total Penta-Furans	ND	U	0.0385	2.50			1
Total Hexa-Furans	0.125**J**		0.00540	2.50	1.14		1
Total Hepta-Furans	0.178**J**		0.0100	2.50	1.12		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1329.581	66		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1054.932	53		40-135	1.59	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1002.880	50		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1176.697	59		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	997.424	50		40-135	1.06	1.068
13C-OCDD	4000	1435.843	36	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	1129.052	56		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1043.840	52		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	959.091	48		40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1102.154	55		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	983.824	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	984.524	49		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1192.728	60		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	794.857	40		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	923.312	46		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	672.315	84		40-135	NA	1.025

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Analyzed:**	11/16/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785745

Lab Control Sample
EQ2200475-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,2,3,4,6,7,8-HpCDD	94.6	100	95	70-130
1,2,3,4,7,8-HxCDD	100	100	100	70-130
1,2,3,6,7,8-HxCDD	89.0	100	89	70-130
1,2,3,7,8,9-HxCDD	97.7	100	98	70-130
1,2,3,7,8-PeCDD	95.4	100	95	70-130
2,3,7,8-TCDD	15.4	20.0	77	70-130
OCDD	196	200	98	70-130
1,2,3,4,6,7,8-HpCDF	95.7	100	96	70-130
1,2,3,4,7,8,9-HpCDF	90.3	100	90	70-130
1,2,3,4,7,8-HxCDF	89.9	100	90	70-130
1,2,3,6,7,8-HxCDF	97.9	100	98	70-130
1,2,3,7,8,9-HxCDF	95.1	100	95	70-130
1,2,3,7,8-PeCDF	93.0	100	93	70-130
2,3,4,6,7,8-HxCDF	82.7	100	83	70-130
2,3,4,7,8-PeCDF	101	100	101	70-130
2,3,7,8-TCDF	19.5	20.0	98	70-130
OCDF	187	200	93	70-130

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.4		0.213	0.500	0.77	1.001	1
1,2,3,7,8-PeCDD	95.4		0.192	2.50	1.63	1.001	1
1,2,3,6,7,8-HxCDD	89.0		0.0488	2.50	1.25	1.000	1
1,2,3,4,7,8-HxCDD	100		0.0553	2.50	1.27	1.000	1
1,2,3,7,8,9-HxCDD	97.7		0.0519	2.50	1.23	1.006	1
1,2,3,4,6,7,8-HpCDD	94.6		0.0987	2.50	1.06	1.000	1
OCDD	196		1.24	5.00	0.90	1.000	1
2,3,7,8-TCDF	19.5		0.209	0.500	0.69	1.001	1
1,2,3,7,8-PeCDF	93.0		0.148	2.50	1.52	1.001	1
2,3,4,7,8-PeCDF	101		0.158	2.50	1.52	1.000	1
1,2,3,6,7,8-HxCDF	97.9		0.0448	2.50	1.20	1.000	1
1,2,3,7,8,9-HxCDF	95.1		0.0553	2.50	1.22	1.000	1
1,2,3,4,7,8-HxCDF	89.9		0.0408	2.50	1.20	1.000	1
2,3,4,6,7,8-HxCDF	82.7		0.0392	2.50	1.16	1.000	1
1,2,3,4,6,7,8-HpCDF	95.7		0.359	2.50	0.95	1.000	1
1,2,3,4,7,8,9-HpCDF	90.3		0.469	2.50	0.97	1.000	1
OCDF	187		0.406	5.00	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.4		0.213	0.500	0.77		1
Total Penta-Dioxins	95.4		0.192	2.50	1.63		1
Total Hexa-Dioxins	287		0.0518	2.50	1.27		1
Total Hepta-Dioxins	94.6		0.0987	2.50	1.06		1
Total Tetra-Furans	19.7		0.209	0.500	0.65		1
Total Penta-Furans	196		0.153	2.50	1.44		1
Total Hexa-Furans	366		0.0443	2.50	1.20		1
Total Hepta-Furans	186		0.410	2.50	0.95		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200962
Project:	3266431	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	975.817	49		40-135	0.81	1.024
13C-1,2,3,7,8-PeCDD	2000	757.465	38	**Y**	40-135	1.60	1.207
13C-1,2,3,4,7,8-HxCDD	2000	822.384	41		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	943.724	47		40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	858.033	43		40-135	1.08	1.068
13C-OCDD	4000	1511.573	38	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	870.260	44		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	791.600	40		40-135	1.62	1.160
13C-2,3,4,7,8-PeCDF	2000	714.295	36	**Y**	40-135	1.59	1.197
13C-1,2,3,4,7,8-HxCDF	2000	923.728	46		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	814.235	41		40-135	0.48	0.973
13C-1,2,3,7,8,9-HxCDF	2000	815.907	41		40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1008.007	50		40-135	0.49	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	751.549	38	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	756.913	38	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	301.287	38	**Y**	40-135	NA	1.025

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Normandeau Associates Inc.-Stowe**

Project CHPE Hudson 7
Workorder 3266432
Report ID 208080 on 11/18/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Sep 30, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Don Nazario - Normandeau Associates, Inc.-Stowe
Michael Mettler - Normandeau Associates, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sarah Leung

Sarah Leung *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3266432001	Rhinebeck 3A	Solid	09/29/2022 11:00	09/30/2022 08:30	CBC	Collected By Client
3266432002	Rhinebeck 3B	Solid	09/29/2022 11:15	09/30/2022 08:30	CBC	Collected By Client
3266432003	Rhinebeck 4A	Solid	09/29/2022 09:50	09/30/2022 08:30	CBC	Collected By Client
3266432004	Rhinebeck 4B	Solid	09/29/2022 10:10	09/30/2022 08:30	CBC	Collected By Client
3266432005	Rhinebeck 5A	Solid	09/29/2022 09:05	09/30/2022 08:30	CBC	Collected By Client
3266432006	Rhinebeck 5B	Solid	09/29/2022 09:10	09/30/2022 08:30	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3266432001	Rhinebeck 3A	**S1**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266432002	Rhinebeck 3B	**S2**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266432003	Rhinebeck 4A	**S3**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266432004	Rhinebeck 4B	**S4**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266432005	Rhinebeck 5A	**S5**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.
3266432006	Rhinebeck 5B	**S6**	This sample was analyzed at a dilution in the 8081 pesticide analysis. Reporting limits were adjusted accordingly.

Result Notations

Notation Ref.	
1	See attached subcontract Dioxin results from ALS Houston. SLW 11/18/2022
2	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 36% in the bracketing CCV.
3	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 24% in the bracketing CCV.
4	Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased high 23% in the bracketing CCV.

Detected Results Summary

Client Sample ID	Rhinebeck 3A	Collected	09/29/2022 11:00
Lab Sample ID	3266432001	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	9.7	mg/kg	4.7	1.6	SW846 6010D	#
Cadmium, Total	0.75J	mg/kg	1.2	0.39	SW846 6010D	#
Copper, Total	36.7	mg/kg	4.7	1.6	SW846 6010D	#
Lead, Total	33.3	mg/kg	4.7	1.6	SW846 6010D	#
Mercury, Total	0.12	mg/kg	0.098	0.031	SW846 7471B	#
SEMIVOLATILES						
Anthracene	41.3J	ug/kg	104	35.4	SW846 8270D	#
Benzo(a)anthracene	122	ug/kg	104	35.4	SW846 8270D	#
Benzo(a)pyrene	161	ug/kg	104	35.4	SW846 8270D	#
Benzo(b)fluoranthene	201	ug/kg	104	35.4	SW846 8270D	#
Benzo(g,h,i)perylene	101J	ug/kg	104	35.4	SW846 8270D	#
Benzo(k)fluoranthene	68.4J	ug/kg	104	35.4	SW846 8270D	#
Chrysene	157	ug/kg	104	35.4	SW846 8270D	#
Fluoranthene	278	ug/kg	104	35.4	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	134	ug/kg	104	35.4	SW846 8270D	#
Naphthalene	57.2J	ug/kg	104	35.4	SW846 8270D	#
Phenanthrene	132	ug/kg	104	35.4	SW846 8270D	#
Pyrene	195	ug/kg	104	35.4	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	52.0	%	0.1	0.01	S2540G-11	#
Total Solids	48.0	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhinebeck 3B	Collected	09/29/2022 11:15
Lab Sample ID	3266432002	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.8	mg/kg	2.4	0.79	SW846 6010D	#
Cadmium, Total	0.57J	mg/kg	0.59	0.20	SW846 6010D	#
Copper, Total	16.0	mg/kg	2.4	0.79	SW846 6010D	#
Lead, Total	19.5	mg/kg	2.4	0.79	SW846 6010D	#
Mercury, Total	0.18	mg/kg	0.065	0.021	SW846 7471B	#
SEMIVOLATILES						
Anthracene	35.8J	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(a)anthracene	61.2	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(a)pyrene	65.9	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(b)fluoranthene	73.8	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(g,h,i)perylene	37.5J	ug/kg	61.0	20.7	SW846 8270D	#
Benzo(k)fluoranthene	27.1J	ug/kg	61.0	20.7	SW846 8270D	#
Chrysene	67.3	ug/kg	61.0	20.7	SW846 8270D	#
Fluoranthene	116	ug/kg	61.0	20.7	SW846 8270D	#
Naphthalene	40.6J	ug/kg	61.0	20.7	SW846 8270D	#
Phenanthrene	80.2	ug/kg	61.0	20.7	SW846 8270D	#
Pyrene	99.0	ug/kg	61.0	20.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	29.3	%	0.1	0.01	S2540G-11	#
Total Solids	70.7	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhinebeck 4A	Collected	09/29/2022 09:50
Lab Sample ID	3266432003	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	9.7	mg/kg	3.3	1.1	SW846 6010D	#
Cadmium, Total	0.91	mg/kg	0.81	0.27	SW846 6010D	#
Copper, Total	34.6	mg/kg	3.3	1.1	SW846 6010D	#
Lead, Total	52.9	mg/kg	3.3	1.1	SW846 6010D	#
Mercury, Total	0.38	mg/kg	0.083	0.027	SW846 7471B	#
SEMIVOLATILES						
Acenaphthene	45.6J	ug/kg	77.2	26.3	SW846 8270D	#
Acenaphthylene	91.4	ug/kg	77.2	26.3	SW846 8270D	#
Anthracene	175	ug/kg	77.2	26.3	SW846 8270D	#
Benzo(a)anthracene	357	ug/kg	77.2	26.3	SW846 8270D	#
Benzo(a)pyrene	493	ug/kg	77.2	26.3	SW846 8270D	#
Benzo(b)fluoranthene	426	ug/kg	77.2	26.3	SW846 8270D	#
Benzo(g,h,i)perylene	218	ug/kg	77.2	26.3	SW846 8270D	#
Benzo(k)fluoranthene	125	ug/kg	77.2	26.3	SW846 8270D	#
Chrysene	380	ug/kg	77.2	26.3	SW846 8270D	#
Dibenzo(a,h)anthracene	54.6J	ug/kg	77.2	26.3	SW846 8270D	#
Fluoranthene	458	ug/kg	77.2	26.3	SW846 8270D	#
Fluorene	71.7J	ug/kg	77.2	26.3	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	254	ug/kg	77.2	26.3	SW846 8270D	#
Naphthalene	281	ug/kg	77.2	26.3	SW846 8270D	#
Phenanthrene	334	ug/kg	77.2	26.3	SW846 8270D	#
Pyrene	481	ug/kg	77.2	26.3	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	42.2	%	0.1	0.01	S2540G-11	#
Total Solids	57.8	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhinebeck 4B	Collected	09/29/2022 10:10
Lab Sample ID	3266432004	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	3.4	mg/kg	2.5	0.85	SW846 6010D	#
Copper, Total	9.0	mg/kg	2.5	0.85	SW846 6010D	#
Lead, Total	9.2	mg/kg	2.5	0.85	SW846 6010D	#
Mercury, Total	0.45	mg/kg	0.067	0.022	SW846 7471B	#
SEMIVOLATILES						
Anthracene	31.5J	ug/kg	68.0	23.1	SW846 8270D	#
Benzo(a)anthracene	98.9	ug/kg	68.0	23.1	SW846 8270D	#
Benzo(a)pyrene	105	ug/kg	68.0	23.1	SW846 8270D	#
Benzo(b)fluoranthene	106	ug/kg	68.0	23.1	SW846 8270D	#
Benzo(g,h,i)perylene	42.0J	ug/kg	68.0	23.1	SW846 8270D	#
Benzo(k)fluoranthene	36.8J	ug/kg	68.0	23.1	SW846 8270D	#
Chrysene	82.2	ug/kg	68.0	23.1	SW846 8270D	#
Fluoranthene	180	ug/kg	68.0	23.1	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	55.9J	ug/kg	68.0	23.1	SW846 8270D	#
Naphthalene	46.8J	ug/kg	68.0	23.1	SW846 8270D	#
Phenanthrene	55.5J	ug/kg	68.0	23.1	SW846 8270D	#
Pyrene	126	ug/kg	68.0	23.1	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	31.9	%	0.1	0.01	S2540G-11	#
Total Solids	68.1	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhinebeck 5A	Collected	09/29/2022 09:05
Lab Sample ID	3266432005	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	10.3	mg/kg	3.4	1.1	SW846 6010D	#
Cadmium, Total	1.3	mg/kg	0.85	0.28	SW846 6010D	#
Copper, Total	45.6	mg/kg	3.4	1.1	SW846 6010D	#
Lead, Total	63.6	mg/kg	3.4	1.1	SW846 6010D	#
Mercury, Total	0.50	mg/kg	0.090	0.029	SW846 7471B	#
SEMIVOLATILES						
Acenaphthene	30.9J	ug/kg	84.4	28.7	SW846 8270D	#
Acenaphthylene	64.9J	ug/kg	84.4	28.7	SW846 8270D	#
Anthracene	174	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(a)anthracene	294	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(a)pyrene	355	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(b)fluoranthene	332	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(g,h,i)perylene	173	ug/kg	84.4	28.7	SW846 8270D	#
Benzo(k)fluoranthene	127	ug/kg	84.4	28.7	SW846 8270D	#
Chrysene	310	ug/kg	84.4	28.7	SW846 8270D	#
Dibenzo(a,h)anthracene	46.3J	ug/kg	84.4	28.7	SW846 8270D	#
Fluoranthene	506	ug/kg	84.4	28.7	SW846 8270D	#
Fluorene	61.2J	ug/kg	84.4	28.7	SW846 8270D	#
Naphthalene	168	ug/kg	84.4	28.7	SW846 8270D	#
Phenanthrene	328	ug/kg	84.4	28.7	SW846 8270D	#
Pyrene	505	ug/kg	84.4	28.7	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	45.2	%	0.1	0.01	S2540G-11	#
Total Solids	54.8	%	0.1	0.01	S2540G-11	#

Detected Results Summary

Client Sample ID	Rhinebeck 5B	Collected	09/29/2022 09:10
Lab Sample ID	3266432006	Lab Receipt	09/30/2022 08:30

Compound	Result	Units	RDL	MDL	Method	Flag
METALS						
Arsenic, Total	4.7	mg/kg	2.6	0.88	SW846 6010D	#
Copper, Total	11.8	mg/kg	2.6	0.88	SW846 6010D	#
Lead, Total	17.4	mg/kg	2.6	0.88	SW846 6010D	#
Mercury, Total	0.049J	mg/kg	0.061	0.020	SW846 7471B	#
SEMIVOLATILES						
Benzo(a)anthracene	37.9J	ug/kg	64.6	22.0	SW846 8270D	#
Benzo(a)pyrene	35.6J	ug/kg	64.6	22.0	SW846 8270D	#
Benzo(b)fluoranthene	35.7J	ug/kg	64.6	22.0	SW846 8270D	#
Chrysene	27.9J	ug/kg	64.6	22.0	SW846 8270D	#
Fluoranthene	52.0J	ug/kg	64.6	22.0	SW846 8270D	#
Indeno(1,2,3-cd)pyrene	22.8J	ug/kg	64.6	22.0	SW846 8270D	#
Naphthalene	38.8J	ug/kg	64.6	22.0	SW846 8270D	#
Phenanthrene	33.8J	ug/kg	64.6	22.0	SW846 8270D	#
Pyrene	41.1J	ug/kg	64.6	22.0	SW846 8270D	#
Sub'd-CASH Labs						
Dioxin	See attached	ug/L			EPA 1613B	#
WET CHEMISTRY						
Moisture	30.9	%	0.1	0.01	S2540G-11	#
Total Solids	69.1	%	0.1	0.01	S2540G-11	#

Results

Client Sample ID	Rhinebeck 3A	Collected	09/29/2022 11:00
Lab Sample ID	3266432001	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	9.7	S1	mg/kg	4.7	1.6	SW846 6010D	1	10/19/2022 14:45	A1S	A1
Cadmium, Total	0.75J	J,S1	mg/kg	1.2	0.39	SW846 6010D	1	10/19/2022 14:45	A1S	A1
Copper, Total	36.7	S1	mg/kg	4.7	1.6	SW846 6010D	1	10/19/2022 14:45	A1S	A1
Lead, Total	33.3	S1	mg/kg	4.7	1.6	SW846 6010D	1	10/19/2022 14:45	A1S	A1
Mercury, Total	0.12	S1	mg/kg	0.098	0.031	SW846 7471B	1	10/07/2022 10:57	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S1	ug/kg	17.7	11.4	SW846 8081B	5	10/06/2022 21:20	KJH	A
4,4'-DDE	ND	ND,3,S1	ug/kg	17.7	5.7	SW846 8081B	5	10/06/2022 21:20	KJH	A
4,4'-DDT	ND	ND,S1	ug/kg	17.7	5.1	SW846 8081B	5	10/06/2022 21:20	KJH	A
Chlordane	ND	ND,S1	ug/kg	364	61.4	SW846 8081B	5	10/06/2022 21:20	KJH	A
Dieldrin	ND	ND,4,S1	ug/kg	17.7	6.9	SW846 8081B	5	10/06/2022 21:20	KJH	A
Mirex	ND	ND,S1	ug/kg	17.7	5.5	SW846 8081B	5	10/06/2022 21:20	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	68.1%	30 – 135	10/06/2022 21:20	
Tetrachloro-m-xylene	877-09-8	74.5%	30 – 111	10/06/2022 21:20	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Acenaphthylene	ND	ND,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Anthracene	41.3J	J,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Benzo(a)anthracene	122	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Benzo(a)pyrene	161	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Benzo(b)fluoranthene	201	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Benzo(g,h,i)perylene	101J	J,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Benzo(k)fluoranthene	68.4J	J,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Chrysene	157	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Fluoranthene	278	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Fluorene	ND	ND,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Indeno(1,2,3-cd)pyrene	134	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Naphthalene	57.2J	J,S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Phenanthrene	132	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A
Pyrene	195	S1	ug/kg	104	35.4	SW846 8270D	1	10/03/2022 10:13	S7M	A

Results

Client Sample ID	Rhinebeck 3A	Collected	09/29/2022 11:00
Lab Sample ID	3266432001	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	64.8%	19 – 132	10/03/2022 10:13	
2-Fluorobiphenyl	321-60-8	65.7%	40 – 110	10/03/2022 10:13	
2-Fluorophenol	367-12-4	55.4%	26 – 116	10/03/2022 10:13	
Nitrobenzene-d5	4165-60-0	60.4%	38 – 112	10/03/2022 10:13	
Phenol-d5	4165-62-2	61.2%	35 – 111	10/03/2022 10:13	
Terphenyl-d14	98904-43-9	73.9%	45 – 126	10/03/2022 10:13	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S1	ug/L			EPA 1613B	1	11/18/2022 14:55	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	4.9	1.2	SW846 8260C	1	10/03/2022 19:22	VLM	E
Ethylbenzene	ND	ND,S1	ug/kg	4.9	1.7	SW846 8260C	1	10/03/2022 19:22	VLM	E
Toluene	ND	ND,S1	ug/kg	4.9	1.7	SW846 8260C	1	10/03/2022 19:22	VLM	E
Total Xylenes	ND	ND,S1	ug/kg	14.8	3.5	SW846 8260C	1	10/03/2022 19:22	VLM	E

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.9%	56 – 124	10/03/2022 19:22	
4-Bromofluorobenzene	460-00-4	109%	51 – 128	10/03/2022 19:22	
Dibromofluoromethane	1868-53-7	105%	62 – 123	10/03/2022 19:22	
Toluene-d8	2037-26-5	98.8%	59 – 131	10/03/2022 19:22	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	52.0	S1	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	48.0	S1	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhinebeck 3B	Collected	09/29/2022 11:15
Lab Sample ID	3266432002	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.8	S2	mg/kg	2.4	0.79	SW846 6010D	1	10/19/2022 14:46	A1S	A1
Cadmium, Total	0.57J	J,S2	mg/kg	0.59	0.20	SW846 6010D	1	10/19/2022 14:46	A1S	A1
Copper, Total	16.0	S2	mg/kg	2.4	0.79	SW846 6010D	1	10/19/2022 14:46	A1S	A1
Lead, Total	19.5	S2	mg/kg	2.4	0.79	SW846 6010D	1	10/19/2022 14:46	A1S	A1
Mercury, Total	0.18	S2	mg/kg	0.065	0.021	SW846 7471B	1	10/07/2022 10:58	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S2	ug/kg	11.4	7.4	SW846 8081B	5	10/06/2022 21:51	KJH	A
4,4'-DDE	ND	ND,3,S2	ug/kg	11.4	3.7	SW846 8081B	5	10/06/2022 21:51	KJH	A
4,4'-DDT	ND	ND,S2	ug/kg	11.4	3.3	SW846 8081B	5	10/06/2022 21:51	KJH	A
Chlordane	ND	ND,S2	ug/kg	235	39.6	SW846 8081B	5	10/06/2022 21:51	KJH	A
Dieldrin	ND	ND,4,S2	ug/kg	11.4	4.4	SW846 8081B	5	10/06/2022 21:51	KJH	A
Mirex	ND	ND,S2	ug/kg	11.4	3.6	SW846 8081B	5	10/06/2022 21:51	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	70%	30 – 135	10/06/2022 21:51	
Tetrachloro-m-xylene	877-09-8	72.9%	30 – 111	10/06/2022 21:51	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Acenaphthylene	ND	ND,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Anthracene	35.8J	J,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Benzo(a)anthracene	61.2	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Benzo(a)pyrene	65.9	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Benzo(b)fluoranthene	73.8	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Benzo(g,h,i)perylene	37.5J	J,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Benzo(k)fluoranthene	27.1J	J,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Chrysene	67.3	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Fluoranthene	116	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Fluorene	ND	ND,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Naphthalene	40.6J	J,S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Phenanthrene	80.2	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A
Pyrene	99.0	S2	ug/kg	61.0	20.7	SW846 8270D	1	10/03/2022 10:38	S7M	A

Results

Client Sample ID	Rhinebeck 3B	Collected	09/29/2022 11:15
Lab Sample ID	3266432002	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	65.1%	19 – 132	10/03/2022 10:38	
2-Fluorobiphenyl	321-60-8	69.4%	40 – 110	10/03/2022 10:38	
2-Fluorophenol	367-12-4	61.1%	26 – 116	10/03/2022 10:38	
Nitrobenzene-d5	4165-60-0	68.3%	38 – 112	10/03/2022 10:38	
Phenol-d5	4165-62-2	65.4%	35 – 111	10/03/2022 10:38	
Terphenyl-d14	98904-43-9	72.2%	45 – 126	10/03/2022 10:38	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S2	ug/L			EPA 1613B	1	11/18/2022 14:56	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	2.2	0.56	SW846 8260C	1	10/01/2022 02:17	VLM	D
Ethylbenzene	ND	ND,S2	ug/kg	2.2	0.76	SW846 8260C	1	10/01/2022 02:17	VLM	D
Toluene	ND	ND,S2	ug/kg	2.2	0.75	SW846 8260C	1	10/01/2022 02:17	VLM	D
Total Xylenes	ND	ND,S2	ug/kg	6.7	1.6	SW846 8260C	1	10/01/2022 02:17	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.3%	56 – 124	10/01/2022 02:17	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	10/01/2022 02:17	
Dibromofluoromethane	1868-53-7	100%	62 – 123	10/01/2022 02:17	
Toluene-d8	2037-26-5	98.6%	59 – 131	10/01/2022 02:17	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	29.3	S2	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	70.7	S2	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhinebeck 4A	Collected	09/29/2022 09:50
Lab Sample ID	3266432003	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	9.7	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:47	A1S	A1
Cadmium, Total	0.91	S3	mg/kg	0.81	0.27	SW846 6010D	1	10/19/2022 14:47	A1S	A1
Copper, Total	34.6	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:47	A1S	A1
Lead, Total	52.9	S3	mg/kg	3.3	1.1	SW846 6010D	1	10/19/2022 14:47	A1S	A1
Mercury, Total	0.38	S3	mg/kg	0.083	0.027	SW846 7471B	1	10/07/2022 11:23	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S3	ug/kg	14.0	9.0	SW846 8081B	5	10/06/2022 21:30	KJH	A
4,4'-DDE	ND	ND,3,S3	ug/kg	14.0	4.5	SW846 8081B	5	10/06/2022 21:30	KJH	A
4,4'-DDT	ND	ND,S3	ug/kg	14.0	4.0	SW846 8081B	5	10/06/2022 21:30	KJH	A
Chlordane	ND	ND,S3	ug/kg	287	48.4	SW846 8081B	5	10/06/2022 21:30	KJH	A
Dieldrin	ND	ND,4,S3	ug/kg	14.0	5.4	SW846 8081B	5	10/06/2022 21:30	KJH	A
Mirex	ND	ND,S3	ug/kg	14.0	4.4	SW846 8081B	5	10/06/2022 21:30	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	65.3%	30 – 135	10/06/2022 21:30	
Tetrachloro-m-xylene	877-09-8	72.8%	30 – 111	10/06/2022 21:30	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	45.6J	J,S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Acenaphthylene	91.4	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Anthracene	175	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Benzo(a)anthracene	357	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Benzo(a)pyrene	493	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Benzo(b)fluoranthene	426	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Benzo(g,h,i)perylene	218	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Benzo(k)fluoranthene	125	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Chrysene	380	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Dibenzo(a,h)anthracene	54.6J	J,S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Fluoranthene	458	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Fluorene	71.7J	J,S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Indeno(1,2,3-cd)pyrene	254	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Naphthalene	281	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Phenanthrene	334	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A
Pyrene	481	S3	ug/kg	77.2	26.3	SW846 8270D	1	10/03/2022 11:04	S7M	A

Results

Client Sample ID	Rhinebeck 4A	Collected	09/29/2022 09:50
Lab Sample ID	3266432003	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	62.6%	19 – 132	10/03/2022 11:04	
2-Fluorobiphenyl	321-60-8	71.2%	40 – 110	10/03/2022 11:04	
2-Fluorophenol	367-12-4	64.7%	26 – 116	10/03/2022 11:04	
Nitrobenzene-d5	4165-60-0	72.4%	38 – 112	10/03/2022 11:04	
Phenol-d5	4165-62-2	63.8%	35 – 111	10/03/2022 11:04	
Terphenyl-d14	98904-43-9	68.8%	45 – 126	10/03/2022 11:04	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S3	ug/L			EPA 1613B	1	11/18/2022 14:56	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	3.1	0.78	SW846 8260C	1	10/01/2022 02:42	VLM	D
Ethylbenzene	ND	ND,S3	ug/kg	3.1	1.1	SW846 8260C	1	10/01/2022 02:42	VLM	D
Toluene	ND	ND,S3	ug/kg	3.1	1.0	SW846 8260C	1	10/01/2022 02:42	VLM	D
Total Xylenes	ND	ND,S3	ug/kg	9.3	2.2	SW846 8260C	1	10/01/2022 02:42	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.6%	56 – 124	10/01/2022 02:42	
4-Bromofluorobenzene	460-00-4	105%	51 – 128	10/01/2022 02:42	
Dibromofluoromethane	1868-53-7	98.6%	62 – 123	10/01/2022 02:42	
Toluene-d8	2037-26-5	96%	59 – 131	10/01/2022 02:42	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	42.2	S3	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	57.8	S3	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhinebeck 4B	Collected	09/29/2022 10:10
Lab Sample ID	3266432004	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	3.4	S4	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:50	A1S	A1
Cadmium, Total	ND	ND,S4	mg/kg	0.64	0.21	SW846 6010D	1	10/19/2022 14:50	A1S	A1
Copper, Total	9.0	S4	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:50	A1S	A1
Lead, Total	9.2	S4	mg/kg	2.5	0.85	SW846 6010D	1	10/19/2022 14:50	A1S	A1
Mercury, Total	0.45	S4	mg/kg	0.067	0.022	SW846 7471B	1	10/07/2022 11:24	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S4	ug/kg	11.9	7.7	SW846 8081B	5	10/06/2022 22:02	KJH	A
4,4'-DDE	ND	ND,3,S4	ug/kg	11.9	3.8	SW846 8081B	5	10/06/2022 22:02	KJH	A
4,4'-DDT	ND	ND,S4	ug/kg	11.9	3.4	SW846 8081B	5	10/06/2022 22:02	KJH	A
Chlordane	ND	ND,S4	ug/kg	244	41.1	SW846 8081B	5	10/06/2022 22:02	KJH	A
Dieldrin	ND	ND,4,S4	ug/kg	11.9	4.6	SW846 8081B	5	10/06/2022 22:02	KJH	A
Mirex	ND	ND,S4	ug/kg	11.9	3.7	SW846 8081B	5	10/06/2022 22:02	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	65%	30 – 135	10/06/2022 22:02	
Tetrachloro-m-xylene	877-09-8	68.6%	30 – 111	10/06/2022 22:02	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Acenaphthylene	ND	ND,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Anthracene	31.5J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Benzo(a)anthracene	98.9	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Benzo(a)pyrene	105	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Benzo(b)fluoranthene	106	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Benzo(g,h,i)perylene	42.0J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Benzo(k)fluoranthene	36.8J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Chrysene	82.2	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Fluoranthene	180	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Fluorene	ND	ND,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Indeno(1,2,3-cd)pyrene	55.9J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Naphthalene	46.8J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Phenanthrene	55.5J	J,S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A
Pyrene	126	S4	ug/kg	68.0	23.1	SW846 8270D	1	10/03/2022 11:29	S7M	A

Results

Client Sample ID	Rhinebeck 4B	Collected	09/29/2022 10:10
Lab Sample ID	3266432004	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	68.4%	19 – 132	10/03/2022 11:29	
2-Fluorobiphenyl	321-60-8	78.6%	40 – 110	10/03/2022 11:29	
2-Fluorophenol	367-12-4	74.3%	26 – 116	10/03/2022 11:29	
Nitrobenzene-d5	4165-60-0	79.3%	38 – 112	10/03/2022 11:29	
Phenol-d5	4165-62-2	73.8%	35 – 111	10/03/2022 11:29	
Terphenyl-d14	98904-43-9	76.1%	45 – 126	10/03/2022 11:29	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S4	ug/L			EPA 1613B	1	11/18/2022 14:56	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S4	ug/kg	2.4	0.60	SW846 8260C	1	10/01/2022 03:06	VLM	D
Ethylbenzene	ND	ND,S4	ug/kg	2.4	0.82	SW846 8260C	1	10/01/2022 03:06	VLM	D
Toluene	ND	ND,S4	ug/kg	2.4	0.81	SW846 8260C	1	10/01/2022 03:06	VLM	D
Total Xylenes	ND	ND,S4	ug/kg	7.2	1.7	SW846 8260C	1	10/01/2022 03:06	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.4%	56 – 124	10/01/2022 03:06	
4-Bromofluorobenzene	460-00-4	106%	51 – 128	10/01/2022 03:06	
Dibromofluoromethane	1868-53-7	99.9%	62 – 123	10/01/2022 03:06	
Toluene-d8	2037-26-5	98.6%	59 – 131	10/01/2022 03:06	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	31.9	S4	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	68.1	S4	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhinebeck 5A	Collected	09/29/2022 09:05
Lab Sample ID	3266432005	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	10.3	S5	mg/kg	3.4	1.1	SW846 6010D	1	10/19/2022 14:51	A1S	A1
Cadmium, Total	1.3	S5	mg/kg	0.85	0.28	SW846 6010D	1	10/19/2022 14:51	A1S	A1
Copper, Total	45.6	S5	mg/kg	3.4	1.1	SW846 6010D	1	10/19/2022 14:51	A1S	A1
Lead, Total	63.6	S5	mg/kg	3.4	1.1	SW846 6010D	1	10/19/2022 14:51	A1S	A1
Mercury, Total	0.50	S5	mg/kg	0.090	0.029	SW846 7471B	1	10/07/2022 11:30	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S5	ug/kg	15.2	9.8	SW846 8081B	5	10/06/2022 21:41	KJH	A
4,4'-DDE	ND	ND,3,S5	ug/kg	15.2	4.9	SW846 8081B	5	10/06/2022 21:41	KJH	A
4,4'-DDT	ND	ND,S5	ug/kg	15.2	4.4	SW846 8081B	5	10/06/2022 21:41	KJH	A
Chlordane	ND	ND,S5	ug/kg	313	52.7	SW846 8081B	5	10/06/2022 21:41	KJH	A
Dieldrin	ND	ND,4,S5	ug/kg	15.2	5.9	SW846 8081B	5	10/06/2022 21:41	KJH	A
Mirex	ND	ND,S5	ug/kg	15.2	4.7	SW846 8081B	5	10/06/2022 21:41	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	65.8%	30 – 135	10/06/2022 21:41	
Tetrachloro-m-xylene	877-09-8	70.4%	30 – 111	10/06/2022 21:41	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	30.9J	J,S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Acenaphthylene	64.9J	J,S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Anthracene	174	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Benzo(a)anthracene	294	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Benzo(a)pyrene	355	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Benzo(b)fluoranthene	332	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Benzo(g,h,i)perylene	173	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Benzo(k)fluoranthene	127	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Chrysene	310	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Dibenzo(a,h)anthracene	46.3J	J,S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Fluoranthene	506	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Fluorene	61.2J	J,S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Indeno(1,2,3-cd)pyrene	ND	ND,S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Naphthalene	168	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Phenanthrene	328	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A
Pyrene	505	S5	ug/kg	84.4	28.7	SW846 8270D	1	10/03/2022 11:55	S7M	A

Results

Client Sample ID	Rhinebeck 5A	Collected	09/29/2022 09:05
Lab Sample ID	3266432005	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	63.6%	19 – 132	10/03/2022 11:55	
2-Fluorobiphenyl	321-60-8	66.6%	40 – 110	10/03/2022 11:55	
2-Fluorophenol	367-12-4	53.5%	26 – 116	10/03/2022 11:55	
Nitrobenzene-d5	4165-60-0	62.4%	38 – 112	10/03/2022 11:55	
Phenol-d5	4165-62-2	56%	35 – 111	10/03/2022 11:55	
Terphenyl-d14	98904-43-9	72%	45 – 126	10/03/2022 11:55	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S5	ug/L			EPA 1613B	1	11/18/2022 14:57	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S5	ug/kg	3.8	0.96	SW846 8260C	1	10/01/2022 03:30	VLM	D
Ethylbenzene	ND	ND,S5	ug/kg	3.8	1.3	SW846 8260C	1	10/01/2022 03:30	VLM	D
Toluene	ND	ND,S5	ug/kg	3.8	1.3	SW846 8260C	1	10/01/2022 03:30	VLM	D
Total Xylenes	ND	ND,S5	ug/kg	11.5	2.7	SW846 8260C	1	10/01/2022 03:30	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	88.7%	56 – 124	10/01/2022 03:30	
4-Bromofluorobenzene	460-00-4	103%	51 – 128	10/01/2022 03:30	
Dibromofluoromethane	1868-53-7	100%	62 – 123	10/01/2022 03:30	
Toluene-d8	2037-26-5	96.2%	59 – 131	10/01/2022 03:30	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	45.2	S5	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	54.8	S5	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Results

Client Sample ID	Rhinebeck 5B	Collected	09/29/2022 09:10
Lab Sample ID	3266432006	Lab Receipt	09/30/2022 08:30

METALS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Arsenic, Total	4.7	S6	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:52	A1S	A1
Cadmium, Total	ND	ND,S6	mg/kg	0.66	0.22	SW846 6010D	1	10/19/2022 14:52	A1S	A1
Copper, Total	11.8	S6	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:52	A1S	A1
Lead, Total	17.4	S6	mg/kg	2.6	0.88	SW846 6010D	1	10/19/2022 14:52	A1S	A1
Mercury, Total	0.049J	J,S6	mg/kg	0.061	0.020	SW846 7471B	1	10/07/2022 11:31	WDA	A

PESTICIDES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
4,4'-DDD	ND	ND,2,S6	ug/kg	12.0	7.8	SW846 8081B	5	10/06/2022 22:13	KJH	A
4,4'-DDE	ND	ND,3,S6	ug/kg	12.0	3.9	SW846 8081B	5	10/06/2022 22:13	KJH	A
4,4'-DDT	ND	ND,S6	ug/kg	12.0	3.5	SW846 8081B	5	10/06/2022 22:13	KJH	A
Chlordane	ND	ND,S6	ug/kg	247	41.6	SW846 8081B	5	10/06/2022 22:13	KJH	A
Dieldrin	ND	ND,4,S6	ug/kg	12.0	4.7	SW846 8081B	5	10/06/2022 22:13	KJH	A
Mirex	ND	ND,S6	ug/kg	12.0	3.7	SW846 8081B	5	10/06/2022 22:13	KJH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
Decachlorobiphenyl	2051-24-3	70.4%	30 – 135	10/06/2022 22:13	
Tetrachloro-m-xylene	877-09-8	79.5%	30 – 111	10/06/2022 22:13	

SEMIVOLATILES

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acenaphthene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Acenaphthylene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Anthracene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Benzo(a)anthracene	37.9J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Benzo(a)pyrene	35.6J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Benzo(b)fluoranthene	35.7J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Benzo(g,h,i)perylene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Benzo(k)fluoranthene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Chrysene	27.9J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Dibenzo(a,h)anthracene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Fluoranthene	52.0J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Fluorene	ND	ND,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Indeno(1,2,3-cd)pyrene	22.8J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Naphthalene	38.8J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Phenanthrene	33.8J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A
Pyrene	41.1J	J,S6	ug/kg	64.6	22.0	SW846 8270D	1	10/03/2022 12:20	S7M	A

Results

Client Sample ID	Rhinebeck 5B	Collected	09/29/2022 09:10
Lab Sample ID	3266432006	Lab Receipt	09/30/2022 08:30

SEMIVOLATILES (cont.)

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2,4,6-Tribromophenol	118-79-6	73.5%	19 – 132	10/03/2022 12:20	
2-Fluorobiphenyl	321-60-8	83.3%	40 – 110	10/03/2022 12:20	
2-Fluorophenol	367-12-4	77.7%	26 – 116	10/03/2022 12:20	
Nitrobenzene-d5	4165-60-0	85.5%	38 – 112	10/03/2022 12:20	
Phenol-d5	4165-62-2	76.6%	35 – 111	10/03/2022 12:20	
Terphenyl-d14	98904-43-9	79.4%	45 – 126	10/03/2022 12:20	

Sub'd-CASH Labs

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dioxin	See attached	1,S6	ug/L			EPA 1613B	1	11/18/2022 14:57	SUB	G

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S6	ug/kg	2.5	0.63	SW846 8260C	1	10/01/2022 03:55	VLM	D
Ethylbenzene	ND	ND,S6	ug/kg	2.5	0.85	SW846 8260C	1	10/01/2022 03:55	VLM	D
Toluene	ND	ND,S6	ug/kg	2.5	0.84	SW846 8260C	1	10/01/2022 03:55	VLM	D
Total Xylenes	ND	ND,S6	ug/kg	7.5	1.8	SW846 8260C	1	10/01/2022 03:55	VLM	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.4%	56 – 124	10/01/2022 03:55	
4-Bromofluorobenzene	460-00-4	110%	51 – 128	10/01/2022 03:55	
Dibromofluoromethane	1868-53-7	101%	62 – 123	10/01/2022 03:55	
Toluene-d8	2037-26-5	98.4%	59 – 131	10/01/2022 03:55	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	MDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	30.9	S6	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A
Total Solids	69.1	S6	%	0.1	0.01	S2540G-11	1	10/06/2022 11:23	NXL	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3266432001	Rhinebeck 3A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266432002	Rhinebeck 3B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266432003	Rhinebeck 4A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266432004	Rhinebeck 4B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266432005	Rhinebeck 5A	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	
3266432006	Rhinebeck 5B	EPA 1613B	N/A	
		SW846 6010D	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8081B	SW846 3546	
		SW846 8270D	SW846 3546	
		SW846 8260C	SW846 5035A	
		S2540G-11	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3266432001	Rhinebeck 3A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	886593	09/29/2022 11:00	VLM	SW846 8260C	886594
		N/A	N/A	N/A		S2540G-11	887530
3266432002	Rhinebeck 3B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	886554	10/06/2022 10:15	WDA	SW846 7471B	888227
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 11:15	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266432003	Rhinebeck 4A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	887109	10/06/2022 10:15	WDA	SW846 7471B	888229
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 09:50	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266432004	Rhinebeck 4B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	887109	10/06/2022 10:15	WDA	SW846 7471B	888229
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 10:10	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266432005	Rhinebeck 5A	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	887109	10/06/2022 10:15	WDA	SW846 7471B	888229
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 09:05	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530
3266432006	Rhinebeck 5B	N/A	N/A	N/A		EPA 1613B	
		SW846 3051A	887149	10/05/2022 18:55	ANN	SW846 6010D	891528
		SW846 7471B	887109	10/06/2022 10:15	WDA	SW846 7471B	888229
		SW846 3546	885620	10/02/2022 17:10	J1H	SW846 8081B	886401
		SW846 3546	885622	10/02/2022 16:35	J1H	SW846 8270D	886478
		SW846 5035A	885654	09/29/2022 09:10	PDK	SW846 8260C	885655
		N/A	N/A	N/A		S2540G-11	887530

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3266432
Logged By: CXW
PM: SSL

COC #:
ALS Quote #: 90462

Client Name: Normandeau Assoc
Address: 400 Old Reading Pike
Stowe, PA 19464

Contact: DON NAZARIO
Phone#: 717-617-7076
Project Name/#: CHPE Hudson 7
Bill To: Normandeau
Purchase Order #: 24711.001

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X]-Y DNAZARIO@Normandeau.com

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	Container Type	Container Size	Preservative	VOCs, % moist	PAHs, Metals Pest	Dioxin
						VOA	GL	GL			
						40ml	8oz	8oz			
						MeOH	-	-			
1 Rhinebeck 3A	9/29/22	1100		G	S	4	1	1			
2 3B		1115				4	1	1			
3 4A		0950				4	1	1			
4 4B		1010				4	1	1			
5 5A		0905				4	1	1			
6 5B		0910				4	1	1			
7											
8											
9											
10											

ANALYSES/METHOD REQUESTED
Enter Number of Containers Per Sample or Field Results Below.

SAMPLED BY (Please Print, If MD include Sampler #): DON NAZARIO

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
9/29/22	1500	1		2	Fedex
9.30.22	830	3	Fedex	4	
		5		6	
		7		8	
		9		10	

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 05/22

Receipt Information (completed by Receiving Lab)
Temp Taken By: KSB Therm ID: 570 WO Temp (°C) 4
Receipt Info completed by: KSB WV Containers 0-6°C Y N (NA)

Cooler Custody Seals Intact	(Y)	N	NA
Sample Custody Seal Intact	Y	N	(NA)
Received on Ice	(Y)	N	NA
Coolers & Samples Intact	(Y)	N	
Correct Containers Provided	(Y)	N	
Sample Label/COC Agree	(Y)	N	
Adequate Sample Volumes	(Y)	N	
VOA only: Headspace Present	Y	N	(NA)
VOA only: Trip Blank	Y	N	(NA)

Deviations? NO YES
If YES, list below:

NJ ≤ 4 days? Y N
Courier/Tracking #: 7700 5204 8133

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y (N) Rad Screen (uCi)_____
Reportable SDWA Sample(s)? Y (N) New Source? Y N
SDWA State of Origin?_____ New Source Contact:
PWSID #_____
PWS Contact:_____ PWS Phone #:_____

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES (NO)
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDD: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

November 18, 2022 Service Request No:E2200963

Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057

Laboratory Results for: 3266432

Dear Sarah,

Enclosed are the results of the sample(s) submitted to our laboratory October 05, 2022
For your reference, these analyses have been assigned our service request number **E2200963.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - Middletown	**Service Request No.:**	E2200963
Project:	3266432	**Date Received:**	10/05/22
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 10/05/22.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2200475: Laboratory Control Spike (LCS) sample was analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS is within quality control limits.

The batch precision (MS/DMS) measurements were determined on an unrelated sample in the extraction batch. The MS/DMS results are not included in this report.

B flags – Method Blanks

The Method Blank EQ2200475-01 contained low levels of target compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Cleanup Standard

The recoveries for the cleanup standard, 37Cl-2,3,7,8-TCDD are below control limits. The sample results are not affected since this labeled standard is provided as a means of demonstrating that both the sample extraction and subsequent cleanup steps performed as expected and is not used in quantitation of target analytes.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Client: ALS Environmental - Middletown **Service Request:**E2200963
Project: 3266432

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200963-001	3266432-001 (Rhinebeck 3A)	9/29/2022	1100
E2200963-002	3266432-002 (Rhinebeck 3B)	9/29/2022	1145
E2200963-003	3266432-003 (Rhinebeck 4A)	9/29/2022	0950
E2200963-004	3266432-004 (Rhinebeck 4B)	9/29/2022	1010
E2200963-005	3266432-005 (Rhinebeck 5A)	9/29/2022	0905
E2200963-006	3266432-006 (Rhinebeck 5B)	9/29/2022	0918

Service Request Summary

Folder #: **E2200963**
Client Name: ALS Environmental - Middletown
Project Name: 3266432
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 10/05/22
Internal Due Date: 11/9/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3266432
EDD: BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

				HOUSTON	
Lab Samp No.	**Client Samp No**	**Matrix**	**Collected**	PCDD PCDF/8290A	Total Solids/ALS SOP
E2200963-001	3266432-001 (Rhinebeck 3A)	Soil	09/29/22 1100	II	II
E2200963-002	3266432-002 (Rhinebeck 3B)	Soil	09/29/22 1145	II	II
E2200963-003	3266432-003 (Rhinebeck 4A)	Soil	09/29/22 0950	II	II
E2200963-004	3266432-004 (Rhinebeck 4B)	Soil	09/29/22 1010	II	II
E2200963-005	3266432-005 (Rhinebeck 5A)	Soil	09/29/22 0905	II	II
E2200963-006	3266432-006 (Rhinebeck 5B)	Soil	09/29/22 0918	II	II

Service Request Summary

Folder #: **E2200963**
Client Name: ALS Environmental - Middletown
Project Name: 3266432
Project Number:

Report To: Sarah Leung
ALS Environmental - Middletown
301 Fulling Mill Road
Middletown, PA 17057
USA
Phone Number: 717-944-5541
Cell Number:
Fax Number:
E-mail: sarah.leung@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 10/05/22
Internal Due Date: 11/9/2022
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 3266432
EDD: BASIC_WQC_CASNo

6 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

Data Qualifiers

HRMS Qualifier Set

B Indicates the associated analyte was found in the method blank at >1/10th the reported value.

E Estimated value. The reported concentration is above the calibration range of the instrument.

H Sample extracted and/or analyzed out of suggested holding time.

J Estimated value. The reported concentration is below the MRL.

K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits.The concentration of this analyte should be considered as an estimate.

P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.

Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.

S Signal saturated detector. Result reported from dilution.

U Compound was analyzed for, but was not detected (ND).

X See Case Narrative.

Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.

i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID: E22-00963 | DB-5MSUI | SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
11/18/22	JC	001-006

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
11/18/22	SL	-001, 002, 003, 004, 005, 006-

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Sarah Leung

Phone#: (717) 702-2248

Project Name/#: 3266432

Bill To:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [X] -Y namdt.subcontract@alsglobal.com

Fax? [ ] -Y No.:

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #: 3266432

Project Comments:

Subcontract: ALS Houston

ALS Field Services: □ Pickup □ Labor
□ Composite Sampling □ Rental Equipment
Other:____

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Container Type	Container Size	Perservative	DIOXIN METHOD 8290									Sample/COC Comments
						ANALYSES/METHOD REQUESTED												
						Enter Number of Containers Per Sample or Field Results Below.												
1	3266432001 (Rhinebeck 3A)	9/29/22	1100	G	S	G	8oz	None	1									
2	3266432002 (Rhinebeck 3B)	9/29/22	1145	G	S				1									
3	3266432003 (Rhinebeck 4A)	9/29/22	0950	G	S				1									
4	3266432004 (Rhinebeck 4B)	9/29/22	1010	G	S				1									
5	3266432005 (Rhinebeck 5A)	9/29/22	0905	G	S				1									
6	3266432006 (Rhinebeck 5B)	9/29/22	0918	G	S				1									
7																		
8	Blue ice 1.6° #31 corr -0.2°																	
9																		
10																		

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	10/4/22	1600	2 ALS	10/5/22	10:10
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE/DOD [x] Level 2

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [x] NY [ ] NJ [ ] PA [ ] NC [ ] MD

Reportable to PADEP? Yes [ ] No [ ]

PWSID # ____

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- Excel

other

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Middletown, PA 17057

Rev 11/18

ALS Environmental

Cooler Receipt Form

Project Chemist _____

Client/Project AISM

Thermometer ID IR31

Date/Time Received: 10/5/22 1010 Initials: JG

Date/Time Logged in: 10/5/22 1300 Initials JG.

1. Method of delivery: ○ US Mail ● Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ● Cooler ○ Box ○ Envelope ○ Other _____

3. Were custody seals on coolers? ○ Yes ● No
   Were they intact? ○ Yes ○ No ● N/A
   Were they signed and dated? ○ Yes ○ No ● N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ● Baggies ● Bubble Wrap ○ Gel Packs ● Wet Ice ○ Sleeves ○ Other _____

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling: _____

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5857 1123 0201		10/5/22	1010	CG	1.6	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ● Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ● Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ● Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ● Yes ○ No
10. Did sample labels and tags agree with custody documents? ● Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 408315 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:46

#	Lab Code	Client ID	B#	Method /Test	pH	CI	Matrix	Amt. Ext.	Sample Description
1	E2200962-001	3266431-001 Rhinebeck 1A	.01	8290A/PCDD PCDF			Soil	10.361g	dark mud
2	E2200962-002	3266431-002 Rhinebeck 1B	.01	8290A/PCDD PCDF			Soil	10.385g	dark mud
3	E2200962-003	3266431-003 Rhinebeck 2A	.01	8290A/PCDD PCDF			Soil	10.020g	dark mud
4	E2200962-004	3266431-004 Rhinebeck 2B	.01	8290A/PCDD PCDF			Soil	10.001g	dark mud
5	E2200963-001	3266432-001 (Rhinebeck 3A)	.01	8290A/PCDD PCDF			Soil	10.112g	dark mud and water
6	E2200963-002	3266432-002 (Rhinebeck 3B)	.01	8290A/PCDD PCDF			Soil	10.211g	dark mud and water
7	E2200963-003	3266432-003 (Rhinebeck 4A)	.01	8290A/PCDD PCDF			Soil	10.226g	dark mud and water
8	E2200963-004	3266432-004 (Rhinebeck 4B)	.01	8290A/PCDD PCDF			Soil	10.000g	dark mud and water
9	E2200963-005	3266432-005 (Rhinebeck 5A)	.01	8290A/PCDD PCDF			Soil	10.006g	dark mud and water
10	E2200963-006	3266432-006 (Rhinebeck 5B)	.01	8290A/PCDD PCDF			Soil	10.000g	dark mud and water
11	E2200969-001	2131544	.01	8290/PCDD PCDF			Soil	10.229g	dark sand and rocks
12	E2200969-002	2131545	.01	8290/PCDD PCDF			Soil	10.312g	dark sand and rocks
13	E2200969-003	2131546	.01	8290/PCDD PCDF			Soil	10.114g	dark soil
14	EQ2200475-01	MB		8290A/PCDD PCDF			Solid	10.000g	
15	EQ2200475-02	LCS		8290A/PCDD PCDF			Solid	10.000g	
16	EQ2200475-03	2131546 MS	.01	8290/PCDD PCDF			Solid	10.614g	
17	EQ2200475-04	2131546 DMS	.01	8290/PCDD PCDF			Solid	10.136g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200475-02	100.00µL	EQ2200475-02	100.00µL	EQ2200475-03	100.00µL	EQ2200475-04	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200962-001	100.00µL	E2200962-002	100.00µL	E2200962-003	100.00µL	E2200962-004	100.00µL	E2200963-001	100.00µL	E2200963-002	100.00µL
E2200963-003	100.00µL	E2200963-004	100.00µL	E2200963-005	100.00µL	E2200963-006	100.00µL	E2200969-001	100.00µL	E2200969-002	100.00µL
E2200969-003	100.00µL	EQ2200475-01	100.00µL	EQ2200475-01	100.00µL	EQ2200475-02	100.00µL	EQ2200475-02	100.00µL	EQ2200475-03	100.00µL
EQ2200475-04	100.00µL										

Name: 1613B Labeled Working Standard Inventory ID 225503 Logbook Ref: BF 10/17/2022 225503 Expires On: 04/10/2023

E2200962-001	1,000.00µL	E2200962-002	1,000.00µL	E2200962-003	1,000.00µL	E2200962-004	1,000.00µL	E2200963-001	1,000.00µL	E2200963-002	1,000.00µL
E2200963-003	1,000.00µL	E2200963-004	1,000.00µL	E2200963-005	1,000.00µL	E2200963-006	1,000.00µL	E2200969-001	1,000.00µL	E2200969-002	1,000.00µL
E2200969-003	1,000.00µL	EQ2200475-01	1,000.00µL	EQ2200475-01	1,000.00µL	EQ2200475-02	1,000.00µL	EQ2200475-02	1,000.00µL	EQ2200475-03	1,000.00µL
EQ2200475-04	1,000.00µL										

Preparation Information Benchsheet

Prep Run#: 408315 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:46

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:46	Started:	10/25/22 10:00	Started:	10/25/22 12:00	Started:	10/26/22 11:00
Finished:	10/19/22 09:00	Finished:	10/25/22 11:00	Finished:	10/25/22 15:00	Finished:	10/26/22 14:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
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Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-001 (Rhinebeck 3A)	**Units:**	ng/Kg
Lab Code:	E2200963-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 09:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.112g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540071	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	1.19	1.19			1
1,2,3,7,8-PeCDD	ND	U	0.643	5.46			1
1,2,3,6,7,8-HxCDD	1.13**JK**		0.479	5.46	0.83	1.000	1
1,2,3,4,7,8-HxCDD	0.595**JK**		0.538	5.46	0.93	1.000	1
1,2,3,7,8,9-HxCDD	1.17**J**		0.507	5.46	1.10	1.007	1
1,2,3,4,6,7,8-HpCDD	24.6**K**		0.929	5.46	0.87	1.000	1
OCDD	339		1.88	10.9	0.86	1.000	1
2,3,7,8-TCDF	ND	U	1.15	1.15			1
1,2,3,7,8-PeCDF	ND	U	0.856	5.46			1
2,3,4,7,8-PeCDF	ND	U	0.840	5.46			1
1,2,3,6,7,8-HxCDF	ND	U	0.426	5.46			1
1,2,3,7,8,9-HxCDF	ND	U	0.555	5.46			1
1,2,3,4,7,8-HxCDF	0.611**J**		0.380	5.46	1.41	1.000	1
2,3,4,6,7,8-HxCDF	0.433**J**		0.354	5.46	1.07	1.000	1
1,2,3,4,6,7,8-HpCDF	6.11		0.258	5.46	0.93	1.000	1
1,2,3,4,7,8,9-HpCDF	0.513**J**		0.298	5.46	0.98	1.001	1
OCDF	14.9**K**		1.77	10.9	0.74	1.004	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-001 (Rhinebeck 3A)	**Units:**	ng/Kg
Lab Code:	E2200963-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 09:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.112g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540071	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	1.19	1.19			1
Total Penta-Dioxins	ND	U	0.643	5.46			1
Total Hexa-Dioxins	6.11		0.507	5.46	1.26		1
Total Hepta-Dioxins	30.4		0.929	5.46	0.98		1
Total Tetra-Furans	ND	U	1.15	1.15			1
Total Penta-Furans	ND	U	0.848	5.46			1
Total Hexa-Furans	5.60		0.417	5.46	1.14		1
Total Hepta-Furans	6.62		0.277	5.46	0.93		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-001 (Rhinebeck 3A)	**Units:**	Percent
Lab Code:	E2200963-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 09:05
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.112g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540071	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	729.328	36	**Y**	40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	645.382	32	**Y**	40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	651.508	33	**Y**	40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	746.454	37	**Y**	40-135	1.25	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	595.623	30	**Y**	40-135	1.05	1.068
13C-OCDD	4000	777.894	19	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	627.699	31	**Y**	40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	601.655	30	**Y**	40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	601.478	30	**Y**	40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	693.535	35	**Y**	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	604.912	30	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	578.926	29	**Y**	40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	771.236	39	**Y**	40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	486.829	24	**Y**	40-135	0.41	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	520.208	26	**Y**	40-135	0.41	1.081
37Cl-2,3,7,8-TCDD	800	381.169	48		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-001 (Rhinebeck 3A)	**Units:**	ng/Kg
Lab Code:	E2200963-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	1.19	1.19	1	1	
1,2,3,7,8-PeCDD	ND	0.643	5.46	1	1	
1,2,3,6,7,8-HxCDD	**1.13**	0.479	5.46	1	0.1	0.113
1,2,3,4,7,8-HxCDD	**0.595**	0.538	5.46	1	0.1	0.0595
1,2,3,7,8,9-HxCDD	**1.17**	0.507	5.46	1	0.1	0.117
1,2,3,4,6,7,8-HpCDD	**24.6**	0.929	5.46	1	0.01	0.246
OCDD	**339**	1.88	10.9	1	0.0003	0.102
2,3,7,8-TCDF	ND	1.15	1.15	1	0.1	
1,2,3,7,8-PeCDF	ND	0.856	5.46	1	0.03	
2,3,4,7,8-PeCDF	ND	0.840	5.46	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.426	5.46	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.555	5.46	1	0.1	
1,2,3,4,7,8-HxCDF	**0.611**	0.380	5.46	1	0.1	0.0611
2,3,4,6,7,8-HxCDF	**0.433**	0.354	5.46	1	0.1	0.0433
1,2,3,4,6,7,8-HpCDF	**6.11**	0.258	5.46	1	0.01	0.0611
1,2,3,4,7,8,9-HpCDF	**0.513**	0.298	5.46	1	0.01	0.00513
OCDF	**14.9**	1.77	10.9	1	0.0003	0.00447
		Total TEQ				0.813

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-001 (Rhinebeck 3A)	**Units:**	Percent
Lab Code:	E2200963-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	3.8798g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	45.3		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-002 (Rhinebeck 3B)	**Units:**	ng/Kg
Lab Code:	E2200963-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 10:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.211g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540072	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.669	0.713			1
1,2,3,7,8-PeCDD	0.409**JK**		0.238	3.56	2.37	1.001	1
1,2,3,6,7,8-HxCDD	5.69		0.201	3.56	1.36	1.000	1
1,2,3,4,7,8-HxCDD	1.24**JK**		0.220	3.56	0.86	1.000	1
1,2,3,7,8,9-HxCDD	3.14**J**		0.210	3.56	1.25	1.006	1
1,2,3,4,6,7,8-HpCDD	153		1.45	3.56	1.06	1.000	1
OCDD	1360		5.05	7.13	0.88	1.000	1
2,3,7,8-TCDF	2.30		0.625	0.713	0.69	1.001	1
1,2,3,7,8-PeCDF	ND	U	0.326	3.56			1
2,3,4,7,8-PeCDF	1.29**J**		0.312	3.56	1.68	1.001	1
1,2,3,6,7,8-HxCDF	0.941**JK**		0.201	3.56	1.54	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.250	3.56			1
1,2,3,4,7,8-HxCDF	0.927**J**		0.185	3.56	1.28	1.000	1
2,3,4,6,7,8-HxCDF	0.716**JK**		0.171	3.56	1.48	1.000	1
1,2,3,4,6,7,8-HpCDF	27.9		0.224	3.56	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	1.29**J**		0.255	3.56	1.07	1.000	1
OCDF	43.9		0.725	7.13	0.81	1.004	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-002 (Rhinebeck 3B)	**Units:**	ng/Kg
Lab Code:	E2200963-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 10:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.211g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540072	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	1.51		0.669	0.713	0.74		1
Total Penta-Dioxins	3.34	**J**	0.238	3.56	1.73		1
Total Hexa-Dioxins	50.5		0.210	3.56	1.15		1
Total Hepta-Dioxins	297		1.45	3.56	1.06		1
Total Tetra-Furans	32.2		0.625	0.713	0.69		1
Total Penta-Furans	12.5		0.0893	3.56	1.41		1
Total Hexa-Furans	17.3		0.198	3.56	1.18		1
Total Hepta-Furans	65.4		0.239	3.56	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-002 (Rhinebeck 3B)	**Units:**	Percent
Lab Code:	E2200963-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 10:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.211g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540072	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	769.089	38	**Y**	40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	924.375	46		40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	915.336	46		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	992.267	50		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	900.065	45		40-135	1.08	1.068
13C-OCDD	4000	1293.209	32	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	626.271	31	**Y**	40-135	0.77	0.991
13C-1,2,3,7,8-PeCDF	2000	820.780	41		40-135	1.56	1.160
13C-2,3,4,7,8-PeCDF	2000	810.352	41		40-135	1.61	1.196
13C-1,2,3,4,7,8-HxCDF	2000	895.256	45		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	814.405	41		40-135	0.50	0.972
13C-1,2,3,7,8,9-HxCDF	2000	820.761	41		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1025.249	51		40-135	0.49	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	706.592	35	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	788.313	39	**Y**	40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	265.514	33	**Y**	40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-002 (Rhinebeck 3B)	**Units:**	ng/Kg
Lab Code:	E2200963-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.669	0.713	1	1	
1,2,3,7,8-PeCDD	**0.409**	0.238	3.56	1	1	0.409
1,2,3,6,7,8-HxCDD	**5.69**	0.201	3.56	1	0.1	0.569
1,2,3,4,7,8-HxCDD	**1.24**	0.220	3.56	1	0.1	0.124
1,2,3,7,8,9-HxCDD	**3.14**	0.210	3.56	1	0.1	0.314
1,2,3,4,6,7,8-HpCDD	**153**	1.45	3.56	1	0.01	1.53
OCDD	**1360**	5.05	7.13	1	0.0003	0.408
2,3,7,8-TCDF	**2.30**	0.625	0.713	1	0.1	0.230
1,2,3,7,8-PeCDF	ND	0.326	3.56	1	0.03	
2,3,4,7,8-PeCDF	**1.29**	0.312	3.56	1	0.3	0.387
1,2,3,6,7,8-HxCDF	**0.941**	0.201	3.56	1	0.1	0.0941
1,2,3,7,8,9-HxCDF	ND	0.250	3.56	1	0.1	
1,2,3,4,7,8-HxCDF	**0.927**	0.185	3.56	1	0.1	0.0927
2,3,4,6,7,8-HxCDF	**0.716**	0.171	3.56	1	0.1	0.0716
1,2,3,4,6,7,8-HpCDF	**27.9**	0.224	3.56	1	0.01	0.279
1,2,3,4,7,8,9-HpCDF	**1.29**	0.255	3.56	1	0.01	0.0129
OCDF	**43.9**	0.725	7.13	1	0.0003	0.0132
		Total TEQ				4.53

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 11:45
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-002 (Rhinebeck 3B)	**Units:**	Percent
Lab Code:	E2200963-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	8.5241g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	68.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-003 (Rhinebeck 4A)	**Units:**	ng/Kg
Lab Code:	E2200963-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 11:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.226g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540073	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.506	0.875			1
1,2,3,7,8-PeCDD	1.58**JK**		0.229	4.37	1.21	1.000	1
1,2,3,6,7,8-HxCDD	12.5		0.181	4.37	1.24	1.000	1
1,2,3,4,7,8-HxCDD	2.95**J**		0.199	4.37	1.06	1.000	1
1,2,3,7,8,9-HxCDD	8.37		0.190	4.37	1.24	1.007	1
1,2,3,4,6,7,8-HpCDD	311		0.957	4.37	1.01	1.000	1
OCDD	2370		6.80	8.75	0.88	1.000	1
2,3,7,8-TCDF	5.20**K**		0.370	0.875	0.62	1.001	1
1,2,3,7,8-PeCDF	1.21**J**		0.403	4.37	1.39	1.000	1
2,3,4,7,8-PeCDF	3.11**J**		0.421	4.37	1.36	1.001	1
1,2,3,6,7,8-HxCDF	2.93**J**		0.262	4.37	1.33	1.000	1
1,2,3,7,8,9-HxCDF	0.475**JK**		0.313	4.37	2.21	1.001	1
1,2,3,4,7,8-HxCDF	1.83**J**		0.246	4.37	1.05	1.000	1
2,3,4,6,7,8-HxCDF	1.96**J**		0.223	4.37	1.12	1.000	1
1,2,3,4,6,7,8-HpCDF	56.2		0.539	4.37	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	1.83**J**		0.628	4.37	1.03	1.000	1
OCDF	75.1		0.780	8.75	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-003 (Rhinebeck 4A)	**Units:**	ng/Kg
Lab Code:	E2200963-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 11:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.226g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540073	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	6.09		0.506	0.875	0.82		1
Total Penta-Dioxins	15.5		0.229	4.37	1.39		1
Total Hexa-Dioxins	127		0.190	4.37	1.24		1
Total Hepta-Dioxins	610		0.957	4.37	1.04		1
Total Tetra-Furans	89.8		0.370	0.875	0.69		1
Total Penta-Furans	30.4		0.110	4.37	1.46		1
Total Hexa-Furans	46.5		0.257	4.37	1.19		1
Total Hepta-Furans	134		0.582	4.37	0.99		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-003 (Rhinebeck 4A)	**Units:**	Percent
Lab Code:	E2200963-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 11:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.226g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540073	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1215.169	61		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	1123.693	56		40-135	1.57	1.207
13C-1,2,3,4,7,8-HxCDD	2000	948.854	47		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1122.368	56		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	952.297	48		40-135	1.07	1.068
13C-OCDD	4000	1434.822	36	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	996.685	50		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1053.231	53		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	992.684	50		40-135	1.59	1.196
13C-1,2,3,4,7,8-HxCDF	2000	982.987	49		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	907.823	45		40-135	0.49	0.973
13C-1,2,3,7,8,9-HxCDF	2000	927.626	46		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1118.179	56		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	776.442	39	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	850.860	43		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	429.684	54		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-003 (Rhinebeck 4A)	**Units:**	ng/Kg
Lab Code:	E2200963-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.506	0.875	1	1	
1,2,3,7,8-PeCDD	**1.58**	0.229	4.37	1	1	1.58
1,2,3,6,7,8-HxCDD	**12.5**	0.181	4.37	1	0.1	1.25
1,2,3,4,7,8-HxCDD	**2.95**	0.199	4.37	1	0.1	0.295
1,2,3,7,8,9-HxCDD	**8.37**	0.190	4.37	1	0.1	0.837
1,2,3,4,6,7,8-HpCDD	**311**	0.957	4.37	1	0.01	3.11
OCDD	**2370**	6.80	8.75	1	0.0003	0.711
2,3,7,8-TCDF	**5.20**	0.370	0.875	1	0.1	0.520
1,2,3,7,8-PeCDF	**1.21**	0.403	4.37	1	0.03	0.0363
2,3,4,7,8-PeCDF	**3.11**	0.421	4.37	1	0.3	0.933
1,2,3,6,7,8-HxCDF	**2.93**	0.262	4.37	1	0.1	0.293
1,2,3,7,8,9-HxCDF	**0.475**	0.313	4.37	1	0.1	0.0475
1,2,3,4,7,8-HxCDF	**1.83**	0.246	4.37	1	0.1	0.183
2,3,4,6,7,8-HxCDF	**1.96**	0.223	4.37	1	0.1	0.196
1,2,3,4,6,7,8-HpCDF	**56.2**	0.539	4.37	1	0.01	0.562
1,2,3,4,7,8,9-HpCDF	**1.83**	0.628	4.37	1	0.01	0.0183
OCDF	**75.1**	0.780	8.75	1	0.0003	0.0225
		Total TEQ				10.6

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:50
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-003 (Rhinebeck 4A)	**Units:**	Percent
Lab Code:	E2200963-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.6395g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	55.9		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-004 (Rhinebeck 4B)	**Units:**	ng/Kg
Lab Code:	E2200963-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:00
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540074	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.457	0.744			1
1,2,3,7,8-PeCDD	ND	U	0.153	3.72			1
1,2,3,6,7,8-HxCDD	0.274**J**		0.134	3.72	1.08	1.000	1
1,2,3,4,7,8-HxCDD	0.261**J**		0.149	3.72	1.33	1.000	1
1,2,3,7,8,9-HxCDD	0.149**JK**		0.141	3.72	0.64	1.006	1
1,2,3,4,6,7,8-HpCDD	2.83**JK**		0.274	3.72	1.32	1.000	1
OCDD	37.8		0.660	7.44	0.81	1.000	1
2,3,7,8-TCDF	ND	U	0.320	0.744			1
1,2,3,7,8-PeCDF	ND	U	0.205	3.72			1
2,3,4,7,8-PeCDF	ND	U	0.213	3.72			1
1,2,3,6,7,8-HxCDF	ND	U	0.111	3.72			1
1,2,3,7,8,9-HxCDF	0.203**JK**		0.141	3.72	0.91	1.001	1
1,2,3,4,7,8-HxCDF	0.191**JK**		0.101	3.72	1.58	1.000	1
2,3,4,6,7,8-HxCDF	ND	U	0.0965	3.72			1
1,2,3,4,6,7,8-HpCDF	0.850**J**		0.0600	3.72	0.95	1.000	1
1,2,3,4,7,8,9-HpCDF	0.142**JK**		0.0667	3.72	0.71	1.000	1
OCDF	13.0		0.659	7.44	0.79	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-004 (Rhinebeck 4B)	**Units:**	ng/Kg
Lab Code:	E2200963-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:00
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540074	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.457	0.744			1
Total Penta-Dioxins	ND	U	0.153	3.72			1
Total Hexa-Dioxins	1.44**J**		0.141	3.72	1.13		1
Total Hepta-Dioxins	3.22**J**		0.274	3.72	0.93		1
Total Tetra-Furans	ND	U	0.320	0.744			1
Total Penta-Furans	ND	U	0.209	3.72			1
Total Hexa-Furans	ND	U	0.110	3.72			1
Total Hepta-Furans	3.35**J**		0.0633	3.72	0.95		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-004 (Rhinebeck 4B)	**Units:**	Percent
Lab Code:	E2200963-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:00
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540074	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	983.623	49		40-135	0.80	1.023
13C-1,2,3,7,8-PeCDD	2000	884.618	44		40-135	1.58	1.207
13C-1,2,3,4,7,8-HxCDD	2000	801.434	40		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	898.261	45		40-135	1.28	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	754.646	38	**Y**	40-135	1.08	1.068
13C-OCDD	4000	1072.634	27	**Y**	40-135	0.90	1.140
13C-2,3,7,8-TCDF	2000	835.511	42		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	838.450	42		40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	801.894	40		40-135	1.59	1.196
13C-1,2,3,4,7,8-HxCDF	2000	812.499	41		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	748.962	37	**Y**	40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	744.405	37	**Y**	40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	933.096	47		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	608.640	30	**Y**	40-135	0.44	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	668.584	33	**Y**	40-135	0.41	1.081
37Cl-2,3,7,8-TCDD	800	399.007	50		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-004 (Rhinebeck 4B)	**Units:**	ng/Kg
Lab Code:	E2200963-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.457	0.744	1	1	
1,2,3,7,8-PeCDD	ND	0.153	3.72	1	1	
1,2,3,6,7,8-HxCDD	**0.274**	0.134	3.72	1	0.1	0.0274
1,2,3,4,7,8-HxCDD	**0.261**	0.149	3.72	1	0.1	0.0261
1,2,3,7,8,9-HxCDD	**0.149**	0.141	3.72	1	0.1	0.0149
1,2,3,4,6,7,8-HpCDD	**2.83**	0.274	3.72	1	0.01	0.0283
OCDD	**37.8**	0.660	7.44	1	0.0003	0.0113
2,3,7,8-TCDF	ND	0.320	0.744	1	0.1	
1,2,3,7,8-PeCDF	ND	0.205	3.72	1	0.03	
2,3,4,7,8-PeCDF	ND	0.213	3.72	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.111	3.72	1	0.1	
1,2,3,7,8,9-HxCDF	**0.203**	0.141	3.72	1	0.1	0.0203
1,2,3,4,7,8-HxCDF	**0.191**	0.101	3.72	1	0.1	0.0191
2,3,4,6,7,8-HxCDF	ND	0.0965	3.72	1	0.1	
1,2,3,4,6,7,8-HpCDF	**0.850**	0.0600	3.72	1	0.01	0.00850
1,2,3,4,7,8,9-HpCDF	**0.142**	0.0667	3.72	1	0.01	0.00142
OCDF	**13.0**	0.659	7.44	1	0.0003	0.00390
		Total TEQ				0.161

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-004 (Rhinebeck 4B)	**Units:**	Percent
Lab Code:	E2200963-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.9516g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	67.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-005 (Rhinebeck 5A)	**Units:**	ng/Kg
Lab Code:	E2200963-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:48
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540075	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.400	0.910			1
1,2,3,7,8-PeCDD	ND	U	0.239	4.55			1
1,2,3,6,7,8-HxCDD	2.96**J**		0.135	4.55	1.26	1.000	1
1,2,3,4,7,8-HxCDD	1.09**JK**		0.153	4.55	1.83	1.000	1
1,2,3,7,8,9-HxCDD	2.03**JK**		0.144	4.55	0.94	1.006	1
1,2,3,4,6,7,8-HpCDD	88.8		1.52	4.55	1.05	1.000	1
OCDD	789		4.04	9.10	0.87	1.000	1
2,3,7,8-TCDF	1.89		0.486	0.910	0.85	1.000	1
1,2,3,7,8-PeCDF	ND	U	0.323	4.55			1
2,3,4,7,8-PeCDF	0.650**JK**		0.326	4.55	1.03	1.001	1
1,2,3,6,7,8-HxCDF	0.588**JK**		0.198	4.55	0.96	1.001	1
1,2,3,7,8,9-HxCDF	0.397**J**		0.253	4.55	1.19	1.000	1
1,2,3,4,7,8-HxCDF	0.673**J**		0.181	4.55	1.24	1.000	1
2,3,4,6,7,8-HxCDF	0.325**JK**		0.169	4.55	1.75	1.000	1
1,2,3,4,6,7,8-HpCDF	9.32		0.132	4.55	0.96	1.000	1
1,2,3,4,7,8,9-HpCDF	0.719**J**		0.140	4.55	1.10	1.000	1
OCDF	37.1		1.28	9.10	0.89	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-005 (Rhinebeck 5A)	**Units:**	ng/Kg
Lab Code:	E2200963-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:48
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540075	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.400	0.910			1
Total Penta-Dioxins	ND	U	0.239	4.55			1
Total Hexa-Dioxins	44.0		0.143	4.55	1.18		1
Total Hepta-Dioxins	208		1.52	4.55	1.06		1
Total Tetra-Furans	19.7		0.486	0.910	0.70		1
Total Penta-Furans	5.56		0.114	4.55	1.46		1
Total Hexa-Furans	7.74		0.196	4.55	1.15		1
Total Hepta-Furans	23.4		0.136	4.55	0.96		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-005 (Rhinebeck 5A)	**Units:**	Percent
Lab Code:	E2200963-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 12:48
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.006g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540075	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	864.729	43		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	828.034	41		40-135	1.61	1.207
13C-1,2,3,4,7,8-HxCDD	2000	733.176	37	**Y**	40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	833.887	42		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	696.859	35	**Y**	40-135	1.07	1.068
13C-OCDD	4000	880.414	22	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	741.260	37	**Y**	40-135	0.77	0.991
13C-1,2,3,7,8-PeCDF	2000	768.355	38	**Y**	40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	736.677	37	**Y**	40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	766.099	38	**Y**	40-135	0.49	0.970
13C-1,2,3,6,7,8-HxCDF	2000	680.829	34	**Y**	40-135	0.52	0.972
13C-1,2,3,7,8,9-HxCDF	2000	664.970	33	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	858.769	43		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	542.492	27	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	626.791	31	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	397.242	50		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-005 (Rhinebeck 5A)	**Units:**	ng/Kg
Lab Code:	E2200963-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.400	0.910	1	1	
1,2,3,7,8-PeCDD	ND	0.239	4.55	1	1	
1,2,3,6,7,8-HxCDD	**2.96**	0.135	4.55	1	0.1	0.296
1,2,3,4,7,8-HxCDD	**1.09**	0.153	4.55	1	0.1	0.109
1,2,3,7,8,9-HxCDD	**2.03**	0.144	4.55	1	0.1	0.203
1,2,3,4,6,7,8-HpCDD	**88.8**	1.52	4.55	1	0.01	0.888
OCDD	**789**	4.04	9.10	1	0.0003	0.237
2,3,7,8-TCDF	**1.89**	0.486	0.910	1	0.1	0.189
1,2,3,7,8-PeCDF	ND	0.323	4.55	1	0.03	
2,3,4,7,8-PeCDF	**0.650**	0.326	4.55	1	0.3	0.195
1,2,3,6,7,8-HxCDF	**0.588**	0.198	4.55	1	0.1	0.0588
1,2,3,7,8,9-HxCDF	**0.397**	0.253	4.55	1	0.1	0.0397
1,2,3,4,7,8-HxCDF	**0.673**	0.181	4.55	1	0.1	0.0673
2,3,4,6,7,8-HxCDF	**0.325**	0.169	4.55	1	0.1	0.0325
1,2,3,4,6,7,8-HpCDF	**9.32**	0.132	4.55	1	0.01	0.0932
1,2,3,4,7,8,9-HpCDF	**0.719**	0.140	4.55	1	0.01	0.00719
OCDF	**37.1**	1.28	9.10	1	0.0003	0.0111
		Total TEQ				2.43

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:05
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-005 (Rhinebeck 5A)	**Units:**	Percent
Lab Code:	E2200963-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.6729g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	54.9		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:18
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-006 (Rhinebeck 5B)	**Units:**	ng/Kg
Lab Code:	E2200963-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 13:37
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540076	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.419	0.785			1
1,2,3,7,8-PeCDD	ND	U	0.239	3.92			1
1,2,3,6,7,8-HxCDD	ND	U	0.207	3.92			1
1,2,3,4,7,8-HxCDD	ND	U	0.231	3.92			1
1,2,3,7,8,9-HxCDD	ND	U	0.219	3.92			1
1,2,3,4,6,7,8-HpCDD	2.20**JK**		0.192	3.92	0.80	1.000	1
OCDD	27.1**K**		1.02	7.85	0.74	1.000	1
2,3,7,8-TCDF	ND	U	0.386	0.785			1
1,2,3,7,8-PeCDF	ND	U	0.168	3.92			1
2,3,4,7,8-PeCDF	ND	U	0.168	3.92			1
1,2,3,6,7,8-HxCDF	ND	U	0.0979	3.92			1
1,2,3,7,8,9-HxCDF	ND	U	0.139	3.92			1
1,2,3,4,7,8-HxCDF	ND	U	0.0913	3.92			1
2,3,4,6,7,8-HxCDF	ND	U	0.0833	3.92			1
1,2,3,4,6,7,8-HpCDF	0.668**J**		0.103	3.92	1.14	1.000	1
1,2,3,4,7,8,9-HpCDF	0.237**J**		0.125	3.92	1.03	1.000	1
OCDF	4.04**J**		0.716	7.85	0.91	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:18
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-006 (Rhinebeck 5B)	**Units:**	ng/Kg
Lab Code:	E2200963-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 13:37
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540076	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.419	0.785			1
Total Penta-Dioxins	ND	U	0.239	3.92			1
Total Hexa-Dioxins	ND	U	0.218	3.92			1
Total Hepta-Dioxins	2.54**J**		0.192	3.92	1.01		1
Total Tetra-Furans	ND	U	0.386	0.785			1
Total Penta-Furans	ND	U	0.168	3.92			1
Total Hexa-Furans	ND	U	0.0996	3.92			1
Total Hepta-Furans	0.905**J**		0.114	3.92	1.14		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:18
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-006 (Rhinebeck 5B)	**Units:**	Percent
Lab Code:	E2200963-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 13:37
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540076	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540067

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	840.359	42		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	711.521	36	**Y**	40-135	1.59	1.207
13C-1,2,3,4,7,8-HxCDD	2000	674.522	34	**Y**	40-135	1.31	0.991
13C-1,2,3,6,7,8-HxCDD	2000	777.433	39	**Y**	40-135	1.29	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	657.450	33	**Y**	40-135	1.07	1.068
13C-OCDD	4000	971.661	24	**Y**	40-135	0.85	1.140
13C-2,3,7,8-TCDF	2000	731.125	37	**Y**	40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	684.982	34	**Y**	40-135	1.63	1.160
13C-2,3,4,7,8-PeCDF	2000	657.805	33	**Y**	40-135	1.56	1.196
13C-1,2,3,4,7,8-HxCDF	2000	703.739	35	**Y**	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	634.529	32	**Y**	40-135	0.53	0.973
13C-1,2,3,7,8,9-HxCDF	2000	592.032	30	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	804.371	40		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	514.505	26	**Y**	40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	552.494	28	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	406.221	51		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:18
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-006 (Rhinebeck 5B)	**Units:**	ng/Kg
Lab Code:	E2200963-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.419	0.785	1	1	
1,2,3,7,8-PeCDD	ND	0.239	3.92	1	1	
1,2,3,6,7,8-HxCDD	ND	0.207	3.92	1	0.1	
1,2,3,4,7,8-HxCDD	ND	0.231	3.92	1	0.1	
1,2,3,7,8,9-HxCDD	ND	0.219	3.92	1	0.1	
1,2,3,4,6,7,8-HpCDD	**2.20**	0.192	3.92	1	0.01	0.0220
OCDD	**27.1**	1.02	7.85	1	0.0003	0.00813
2,3,7,8-TCDF	ND	0.386	0.785	1	0.1	
1,2,3,7,8-PeCDF	ND	0.168	3.92	1	0.03	
2,3,4,7,8-PeCDF	ND	0.168	3.92	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.0979	3.92	1	0.1	
1,2,3,7,8,9-HxCDF	ND	0.139	3.92	1	0.1	
1,2,3,4,7,8-HxCDF	ND	0.0913	3.92	1	0.1	
2,3,4,6,7,8-HxCDF	ND	0.0833	3.92	1	0.1	
1,2,3,4,6,7,8-HpCDF	**0.668**	0.103	3.92	1	0.01	0.00668
1,2,3,4,7,8,9-HpCDF	**0.237**	0.125	3.92	1	0.01	0.00237
OCDF	**4.04**	0.716	7.85	1	0.0003	0.00121
		Total TEQ				0.0404

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	09/29/22 09:18
Sample Matrix:	Soil	**Date Received:**	10/05/22 10:10
Sample Name:	3266432-006 (Rhinebeck 5B)	**Units:**	Percent
Lab Code:	E2200963-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:22
	5.3168g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0483	0.500			1
1,2,3,7,8-PeCDD	ND	U	0.0370	2.50			1
1,2,3,6,7,8-HxCDD	0.0575**JK**		0.0221	2.50	0.96	1.000	1
1,2,3,4,7,8-HxCDD	0.165**J**		0.0251	2.50	1.12	1.000	1
1,2,3,7,8,9-HxCDD	0.0249**JK**		0.0235	2.50	4.45	1.007	1
1,2,3,4,6,7,8-HpCDD	0.407**J**		0.00740	2.50	1.13	1.000	1
OCDD	2.59**J**		0.166	5.00	0.87	1.000	1
2,3,7,8-TCDF	ND	U	0.0404	0.500			1
1,2,3,7,8-PeCDF	ND	U	0.0384	2.50			1
2,3,4,7,8-PeCDF	ND	U	0.0386	2.50			1
1,2,3,6,7,8-HxCDF	0.0614**J**		0.00540	2.50	1.13	1.000	1
1,2,3,7,8,9-HxCDF	0.0537**JK**		0.00700	2.50	2.25	1.001	1
1,2,3,4,7,8-HxCDF	0.0332**JK**		0.00500	2.50	1.50	1.000	1
2,3,4,6,7,8-HxCDF	0.0228**JK**		0.00480	2.50	2.65	1.000	1
1,2,3,4,6,7,8-HpCDF	0.0631**JK**		0.00930	2.50	0.44	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0394**JK**		0.0107	2.50	0.49	1.000	1
OCDF	0.306**JK**		0.0517	5.00	0.63	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0483	0.500			1
Total Penta-Dioxins	ND	U	0.0370	2.50			1
Total Hexa-Dioxins	0.279**J**		0.0235	2.50	1.21		1
Total Hepta-Dioxins	0.407**J**		0.00740	2.50	1.13		1
Total Tetra-Furans	ND	U	0.0404	0.500			1
Total Penta-Furans	ND	U	0.0385	2.50			1
Total Hexa-Furans	0.125**J**		0.00540	2.50	1.14		1
Total Hepta-Furans	0.178**J**		0.0100	2.50	1.12		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200475-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/15/22 21:32
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540057	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1329.581	66		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1054.932	53		40-135	1.59	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1002.880	50		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1176.697	59		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	997.424	50		40-135	1.06	1.068
13C-OCDD	4000	1435.843	36	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	1129.052	56		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1043.840	52		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	959.091	48		40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1102.154	55		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	983.824	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	984.524	49		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1192.728	60		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	794.857	40		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	923.312	46		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	672.315	84		40-135	NA	1.025

Accuracy & Precision

ALS Environmental - Houston HRMS
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Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Analyzed:**	11/16/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785745

Lab Control Sample
EQ2200475-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,2,3,4,6,7,8-HpCDD	94.6	100	95	70-130
1,2,3,4,7,8-HxCDD	100	100	100	70-130
1,2,3,6,7,8-HxCDD	89.0	100	89	70-130
1,2,3,7,8,9-HxCDD	97.7	100	98	70-130
1,2,3,7,8-PeCDD	95.4	100	95	70-130
2,3,7,8-TCDD	15.4	20.0	77	70-130
OCDD	196	200	98	70-130
1,2,3,4,6,7,8-HpCDF	95.7	100	96	70-130
1,2,3,4,7,8,9-HpCDF	90.3	100	90	70-130
1,2,3,4,7,8-HxCDF	89.9	100	90	70-130
1,2,3,6,7,8-HxCDF	97.9	100	98	70-130
1,2,3,7,8,9-HxCDF	95.1	100	95	70-130
1,2,3,7,8-PeCDF	93.0	100	93	70-130
2,3,4,6,7,8-HxCDF	82.7	100	83	70-130
2,3,4,7,8-PeCDF	101	100	101	70-130
2,3,7,8-TCDF	19.5	20.0	98	70-130
OCDF	187	200	93	70-130

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.4		0.213	0.500	0.77	1.001	1
1,2,3,7,8-PeCDD	95.4		0.192	2.50	1.63	1.001	1
1,2,3,6,7,8-HxCDD	89.0		0.0488	2.50	1.25	1.000	1
1,2,3,4,7,8-HxCDD	100		0.0553	2.50	1.27	1.000	1
1,2,3,7,8,9-HxCDD	97.7		0.0519	2.50	1.23	1.006	1
1,2,3,4,6,7,8-HpCDD	94.6		0.0987	2.50	1.06	1.000	1
OCDD	196		1.24	5.00	0.90	1.000	1
2,3,7,8-TCDF	19.5		0.209	0.500	0.69	1.001	1
1,2,3,7,8-PeCDF	93.0		0.148	2.50	1.52	1.001	1
2,3,4,7,8-PeCDF	101		0.158	2.50	1.52	1.000	1
1,2,3,6,7,8-HxCDF	97.9		0.0448	2.50	1.20	1.000	1
1,2,3,7,8,9-HxCDF	95.1		0.0553	2.50	1.22	1.000	1
1,2,3,4,7,8-HxCDF	89.9		0.0408	2.50	1.20	1.000	1
2,3,4,6,7,8-HxCDF	82.7		0.0392	2.50	1.16	1.000	1
1,2,3,4,6,7,8-HpCDF	95.7		0.359	2.50	0.95	1.000	1
1,2,3,4,7,8,9-HpCDF	90.3		0.469	2.50	0.97	1.000	1
OCDF	187		0.406	5.00	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.4		0.213	0.500	0.77		1
Total Penta-Dioxins	95.4		0.192	2.50	1.63		1
Total Hexa-Dioxins	287		0.0518	2.50	1.27		1
Total Hepta-Dioxins	94.6		0.0987	2.50	1.06		1
Total Tetra-Furans	19.7		0.209	0.500	0.65		1
Total Penta-Furans	196		0.153	2.50	1.44		1
Total Hexa-Furans	366		0.0443	2.50	1.20		1
Total Hepta-Furans	186		0.410	2.50	0.95		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200963
Project:	3266432	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200475-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/16/22 02:22
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540063	**Blank File Name:**	P540057
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540054

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	975.817	49		40-135	0.81	1.024
13C-1,2,3,7,8-PeCDD	2000	757.465	38	**Y**	40-135	1.60	1.207
13C-1,2,3,4,7,8-HxCDD	2000	822.384	41		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	943.724	47		40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	858.033	43		40-135	1.08	1.068
13C-OCDD	4000	1511.573	38	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	870.260	44		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	791.600	40		40-135	1.62	1.160
13C-2,3,4,7,8-PeCDF	2000	714.295	36	**Y**	40-135	1.59	1.197
13C-1,2,3,4,7,8-HxCDF	2000	923.728	46		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	814.235	41		40-135	0.48	0.973
13C-1,2,3,7,8,9-HxCDF	2000	815.907	41		40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1008.007	50		40-135	0.49	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	751.549	38	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	756.913	38	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	301.287	38	**Y**	40-135	NA	1.025

ANALYTICAL REPORT

Lab Number:	L2254040
Client:	Normandeau Associates, Inc. 600 Beach Road West Haverstraw, NY 10993
ATTN:	Mike Taylor
Phone:	(603) 637-1193
Project Name:	CHPE HUDSON 7
Project Number:	24711.001
Report Date:	10/28/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2254040-01	RHINEBECK 1A	SEDIMENT	KINGSTON, NY	09/29/22 12:30	09/30/22
L2254040-02	RHINEBECK 1B	SEDIMENT	KINGSTON, NY	09/29/22 12:40	09/30/22
L2254040-03	RHINEBECK 2A	SEDIMENT	KINGSTON, NY	09/29/22 11:50	09/30/22
L2254040-04	RHINEBECK 2B	SEDIMENT	KINGSTON, NY	09/29/22 12:00	09/30/22
L2254040-05	RHINEBECK 3A	SEDIMENT	KINGSTON, NY	09/29/22 11:00	09/30/22
L2254040-06	RHINEBECK 3B	SEDIMENT	KINGSTON, NY	09/29/22 11:15	09/30/22
L2254040-07	RHINEBECK 4A	SEDIMENT	KINGSTON, NY	09/29/22 09:50	09/30/22
L2254040-08	RHINEBECK 4B	SEDIMENT	KINGSTON, NY	09/29/22 10:10	09/30/22
L2254040-09	RHINEBECK 5A	SEDIMENT	KINGSTON, NY	09/29/22 09:05	09/30/22
L2254040-10	RHINEBECK 5B	SEDIMENT	KINGSTON, NY	09/29/22 09:10	09/30/22

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

PCB Congeners

L2254040: The sediment samples were frozen upon receipt in order to arrest the holding time.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/28/22

ORGANICS

PCBS

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-01
Client ID: RHINEBECK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:30
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/25/22 15:15
Analyst: PS
Percent Solids: 73%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	2.33		ug/kg	0.545	0.272	1
Cl3-BZ#18	1.85		ug/kg	0.545	0.272	1
Cl3-BZ#28	1.49		ug/kg	0.545	0.272	1
Cl4-BZ#44	0.456	J	ug/kg	0.545	0.272	1
Cl4-BZ#49	1.04		ug/kg	0.545	0.272	1
Cl4-BZ#52	1.21		ug/kg	0.545	0.272	1
Cl4-BZ#66	0.504	J	ug/kg	0.545	0.272	1
Cl5-BZ#87	ND		ug/kg	0.545	0.272	1
Cl5-BZ#101	0.273	J	ug/kg	0.545	0.272	1
Cl5-BZ#105	ND		ug/kg	0.545	0.272	1
Cl5-BZ#118	ND		ug/kg	0.545	0.272	1
Cl6-BZ#128	ND		ug/kg	0.545	0.272	1
Cl6-BZ#138	ND		ug/kg	0.545	0.272	1
Cl6-BZ#153	ND		ug/kg	0.545	0.272	1
Cl7-BZ#170	ND		ug/kg	0.545	0.272	1
Cl7-BZ#180	ND		ug/kg	0.545	0.272	1
Cl7-BZ#183	ND		ug/kg	0.545	0.272	1
Cl7-BZ#184	ND		ug/kg	0.545	0.272	1
Cl7-BZ#187	ND		ug/kg	0.545	0.272	1
Cl8-BZ#195	ND		ug/kg	0.545	0.272	1
Cl9-BZ#206	ND		ug/kg	0.545	0.272	1
Cl10-BZ#209	ND		ug/kg	0.545	0.272	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	74		50-125
BZ 198	**176**	Q	50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-02
Client ID: RHINEBECK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:40
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/25/22 15:47
Analyst: PS
Percent Solids: 73%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.526	0.263	1
Cl3-BZ#18	ND		ug/kg	0.526	0.263	1
Cl3-BZ#28	ND		ug/kg	0.526	0.263	1
Cl4-BZ#44	ND		ug/kg	0.526	0.263	1
Cl4-BZ#49	ND		ug/kg	0.526	0.263	1
Cl4-BZ#52	ND		ug/kg	0.526	0.263	1
Cl4-BZ#66	ND		ug/kg	0.526	0.263	1
Cl5-BZ#87	ND		ug/kg	0.526	0.263	1
Cl5-BZ#101	ND		ug/kg	0.526	0.263	1
Cl5-BZ#105	ND		ug/kg	0.526	0.263	1
Cl5-BZ#118	ND		ug/kg	0.526	0.263	1
Cl6-BZ#128	ND		ug/kg	0.526	0.263	1
Cl6-BZ#138	ND		ug/kg	0.526	0.263	1
Cl6-BZ#153	ND		ug/kg	0.526	0.263	1
Cl7-BZ#170	ND		ug/kg	0.526	0.263	1
Cl7-BZ#180	ND		ug/kg	0.526	0.263	1
Cl7-BZ#183	ND		ug/kg	0.526	0.263	1
Cl7-BZ#184	ND		ug/kg	0.526	0.263	1
Cl7-BZ#187	ND		ug/kg	0.526	0.263	1
Cl8-BZ#195	ND		ug/kg	0.526	0.263	1
Cl9-BZ#206	ND		ug/kg	0.526	0.263	1
Cl10-BZ#209	ND		ug/kg	0.526	0.263	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	54		50-125
BZ 198	115		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-03
Client ID: RHINEBECK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:50
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/25/22 16:19
Analyst: PS
Percent Solids: 58%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	11.1		ug/kg	0.665	0.332	1
Cl3-BZ#18	12.8		ug/kg	0.665	0.332	1
Cl3-BZ#28	11.8		ug/kg	0.665	0.332	1
Cl4-BZ#44	4.31		ug/kg	0.665	0.332	1
Cl4-BZ#49	10.0		ug/kg	0.665	0.332	1
Cl4-BZ#52	11.0		ug/kg	0.665	0.332	1
Cl4-BZ#66	5.38		ug/kg	0.665	0.332	1
Cl5-BZ#87	1.17		ug/kg	0.665	0.332	1
Cl5-BZ#101	3.85		ug/kg	0.665	0.332	1
Cl5-BZ#105	1.17		ug/kg	0.665	0.332	1
Cl5-BZ#118	2.56		ug/kg	0.665	0.332	1
Cl6-BZ#128	0.816		ug/kg	0.665	0.332	1
Cl6-BZ#138	4.61		ug/kg	0.665	0.332	1
Cl6-BZ#153	1.73		ug/kg	0.665	0.332	1
Cl7-BZ#170	0.746		ug/kg	0.665	0.332	1
Cl7-BZ#180	0.779		ug/kg	0.665	0.332	1
Cl7-BZ#183	ND		ug/kg	0.665	0.332	1
Cl7-BZ#184	ND		ug/kg	0.665	0.332	1
Cl7-BZ#187	0.564	J	ug/kg	0.665	0.332	1
Cl8-BZ#195	ND		ug/kg	0.665	0.332	1
Cl9-BZ#206	0.565	J	ug/kg	0.665	0.332	1
Cl10-BZ#209	0.408	J	ug/kg	0.665	0.332	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	53		50-125
BZ 198	99		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-04
Client ID: RHINEBECK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:00
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 16:57
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	5.89		ug/kg	0.630	0.315	1
Cl3-BZ#18	6.41		ug/kg	0.630	0.315	1
Cl3-BZ#28	6.91		ug/kg	0.630	0.315	1
Cl4-BZ#44	4.50		ug/kg	0.630	0.315	1
Cl4-BZ#49	7.64		ug/kg	0.630	0.315	1
Cl4-BZ#52	13.8		ug/kg	0.630	0.315	1
Cl4-BZ#66	4.17		ug/kg	0.630	0.315	1
Cl5-BZ#87	2.94		ug/kg	0.630	0.315	1
Cl5-BZ#101	9.56		ug/kg	0.630	0.315	1
Cl5-BZ#105	2.03		ug/kg	0.630	0.315	1
Cl5-BZ#118	5.81		ug/kg	0.630	0.315	1
Cl6-BZ#128	1.57		ug/kg	0.630	0.315	1
Cl6-BZ#138	6.94		ug/kg	0.630	0.315	1
Cl6-BZ#153	4.67		ug/kg	0.630	0.315	1
Cl7-BZ#170	0.787		ug/kg	0.630	0.315	1
Cl7-BZ#180	1.92		ug/kg	0.630	0.315	1
Cl7-BZ#183	0.572	J	ug/kg	0.630	0.315	1
Cl7-BZ#184	ND		ug/kg	0.630	0.315	1
Cl7-BZ#187	1.04		ug/kg	0.630	0.315	1
Cl8-BZ#195	ND		ug/kg	0.630	0.315	1
Cl9-BZ#206	1.22		ug/kg	0.630	0.315	1
Cl10-BZ#209	2.10		ug/kg	0.630	0.315	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**34**	Q	50-125
BZ 198	81		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-05
Client ID: RHINEBECK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:00
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/25/22 17:24
Analyst: PS
Percent Solids: 53%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	11.3		ug/kg	0.729	0.364	1
Cl3-BZ#18	12.8		ug/kg	0.729	0.364	1
Cl3-BZ#28	13.5		ug/kg	0.729	0.364	1
Cl4-BZ#44	4.41		ug/kg	0.729	0.364	1
Cl4-BZ#49	10.6		ug/kg	0.729	0.364	1
Cl4-BZ#52	11.2		ug/kg	0.729	0.364	1
Cl4-BZ#66	5.87		ug/kg	0.729	0.364	1
Cl5-BZ#87	1.53		ug/kg	0.729	0.364	1
Cl5-BZ#101	5.21		ug/kg	0.729	0.364	1
Cl5-BZ#105	1.18		ug/kg	0.729	0.364	1
Cl5-BZ#118	3.22		ug/kg	0.729	0.364	1
Cl6-BZ#128	1.02		ug/kg	0.729	0.364	1
Cl6-BZ#138	3.04		ug/kg	0.729	0.364	1
Cl6-BZ#153	2.24		ug/kg	0.729	0.364	1
Cl7-BZ#170	0.650	J	ug/kg	0.729	0.364	1
Cl7-BZ#180	0.751		ug/kg	0.729	0.364	1
Cl7-BZ#183	ND		ug/kg	0.729	0.364	1
Cl7-BZ#184	ND		ug/kg	0.729	0.364	1
Cl7-BZ#187	0.439	J	ug/kg	0.729	0.364	1
Cl8-BZ#195	ND		ug/kg	0.729	0.364	1
Cl9-BZ#206	0.512	J	ug/kg	0.729	0.364	1
Cl10-BZ#209	0.667	J	ug/kg	0.729	0.364	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**49**	Q	50-125
BZ 198	107		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-06
Client ID: RHINEBECK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:15
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 15:54
Analyst: PS
Percent Solids: 73%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	37.6		ug/kg	0.530	0.265	1
Cl3-BZ#18	64.0		ug/kg	0.530	0.265	1
Cl3-BZ#28	39.1		ug/kg	0.530	0.265	1
Cl4-BZ#44	17.7		ug/kg	0.530	0.265	1
Cl4-BZ#49	45.3		ug/kg	0.530	0.265	1
Cl4-BZ#52	51.0		ug/kg	0.530	0.265	1
Cl4-BZ#66	18.1		ug/kg	0.530	0.265	1
Cl5-BZ#87	2.93		ug/kg	0.530	0.265	1
Cl5-BZ#101	14.5		ug/kg	0.530	0.265	1
Cl5-BZ#105	2.67		ug/kg	0.530	0.265	1
Cl5-BZ#118	8.69		ug/kg	0.530	0.265	1
Cl6-BZ#128	1.65		ug/kg	0.530	0.265	1
Cl6-BZ#138	7.44		ug/kg	0.530	0.265	1
Cl6-BZ#153	5.45		ug/kg	0.530	0.265	1
Cl7-BZ#170	1.70		ug/kg	0.530	0.265	1
Cl7-BZ#180	2.16		ug/kg	0.530	0.265	1
Cl7-BZ#183	0.624		ug/kg	0.530	0.265	1
Cl7-BZ#184	ND		ug/kg	0.530	0.265	1
Cl7-BZ#187	1.68		ug/kg	0.530	0.265	1
Cl8-BZ#195	0.296	J	ug/kg	0.530	0.265	1
Cl9-BZ#206	1.15		ug/kg	0.530	0.265	1
Cl10-BZ#209	1.02		ug/kg	0.530	0.265	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**43**	Q	50-125
BZ 198	103		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-07
Client ID: RHINEBECK 4A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:50
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 17:29
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	10.4		ug/kg	0.633	0.316	1
Cl3-BZ#18	29.2		ug/kg	0.633	0.316	1
Cl3-BZ#28	33.2		ug/kg	0.633	0.316	1
Cl4-BZ#44	26.2		ug/kg	0.633	0.316	1
Cl4-BZ#49	31.7		ug/kg	0.633	0.316	1
Cl4-BZ#52	42.4		ug/kg	0.633	0.316	1
Cl4-BZ#66	23.9		ug/kg	0.633	0.316	1
Cl5-BZ#87	8.78		ug/kg	0.633	0.316	1
Cl5-BZ#101	34.6		ug/kg	0.633	0.316	1
Cl5-BZ#105	6.56		ug/kg	0.633	0.316	1
Cl5-BZ#118	21.6		ug/kg	0.633	0.316	1
Cl6-BZ#128	5.76		ug/kg	0.633	0.316	1
Cl6-BZ#138	23.7		ug/kg	0.633	0.316	1
Cl6-BZ#153	17.4		ug/kg	0.633	0.316	1
Cl7-BZ#170	4.47		ug/kg	0.633	0.316	1
Cl7-BZ#180	5.36		ug/kg	0.633	0.316	1
Cl7-BZ#183	1.41		ug/kg	0.633	0.316	1
Cl7-BZ#184	ND		ug/kg	0.633	0.316	1
Cl7-BZ#187	3.54		ug/kg	0.633	0.316	1
Cl8-BZ#195	ND		ug/kg	0.633	0.316	1
Cl9-BZ#206	1.56		ug/kg	0.633	0.316	1
Cl10-BZ#209	1.68		ug/kg	0.633	0.316	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**46**	Q	50-125
BZ 198	103		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-08
Client ID: RHINEBECK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 10:10
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 16:25
Analyst: PS
Percent Solids: 71%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.544	0.272	1
Cl3-BZ#18	ND		ug/kg	0.544	0.272	1
Cl3-BZ#28	ND		ug/kg	0.544	0.272	1
Cl4-BZ#44	ND		ug/kg	0.544	0.272	1
Cl4-BZ#49	ND		ug/kg	0.544	0.272	1
Cl4-BZ#52	ND		ug/kg	0.544	0.272	1
Cl4-BZ#66	ND		ug/kg	0.544	0.272	1
Cl5-BZ#87	ND		ug/kg	0.544	0.272	1
Cl5-BZ#101	ND		ug/kg	0.544	0.272	1
Cl5-BZ#105	ND		ug/kg	0.544	0.272	1
Cl5-BZ#118	ND		ug/kg	0.544	0.272	1
Cl6-BZ#128	ND		ug/kg	0.544	0.272	1
Cl6-BZ#138	ND		ug/kg	0.544	0.272	1
Cl6-BZ#153	ND		ug/kg	0.544	0.272	1
Cl7-BZ#170	ND		ug/kg	0.544	0.272	1
Cl7-BZ#180	ND		ug/kg	0.544	0.272	1
Cl7-BZ#183	ND		ug/kg	0.544	0.272	1
Cl7-BZ#184	ND		ug/kg	0.544	0.272	1
Cl7-BZ#187	ND		ug/kg	0.544	0.272	1
Cl8-BZ#195	ND		ug/kg	0.544	0.272	1
Cl9-BZ#206	ND		ug/kg	0.544	0.272	1
Cl10-BZ#209	ND		ug/kg	0.544	0.272	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**46**	Q	50-125
BZ 198	114		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-09
Client ID: RHINEBECK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:05
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 18:00
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	41.4		ug/kg	0.609	0.304	1
Cl3-BZ#18	116		ug/kg	0.609	0.304	1
Cl3-BZ#28	142		ug/kg	0.609	0.304	1
Cl4-BZ#44	53.8		ug/kg	0.609	0.304	1
Cl4-BZ#49	102		ug/kg	0.609	0.304	1
Cl4-BZ#52	111		ug/kg	0.609	0.304	1
Cl4-BZ#66	54.8		ug/kg	0.609	0.304	1
Cl5-BZ#87	10.4		ug/kg	0.609	0.304	1
Cl5-BZ#101	56.2		ug/kg	0.609	0.304	1
Cl5-BZ#105	10.4		ug/kg	0.609	0.304	1
Cl5-BZ#118	34.1		ug/kg	0.609	0.304	1
Cl6-BZ#128	9.06		ug/kg	0.609	0.304	1
Cl6-BZ#138	33.3		ug/kg	0.609	0.304	1
Cl6-BZ#153	26.5		ug/kg	0.609	0.304	1
Cl7-BZ#170	6.08		ug/kg	0.609	0.304	1
Cl7-BZ#180	8.86		ug/kg	0.609	0.304	1
Cl7-BZ#183	2.27		ug/kg	0.609	0.304	1
Cl7-BZ#184	ND		ug/kg	0.609	0.304	1
Cl7-BZ#187	6.74		ug/kg	0.609	0.304	1
Cl8-BZ#195	1.19		ug/kg	0.609	0.304	1
Cl9-BZ#206	3.13		ug/kg	0.609	0.304	1
Cl10-BZ#209	2.02		ug/kg	0.609	0.304	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**49**	Q	50-125
BZ 198	110		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-10
Client ID: RHINEBECK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:10
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/27/22 15:22
Analyst: PS
Percent Solids: 67%

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.582	0.291	1
Cl3-BZ#18	ND		ug/kg	0.582	0.291	1
Cl3-BZ#28	ND		ug/kg	0.582	0.291	1
Cl4-BZ#44	ND		ug/kg	0.582	0.291	1
Cl4-BZ#49	ND		ug/kg	0.582	0.291	1
Cl4-BZ#52	ND		ug/kg	0.582	0.291	1
Cl4-BZ#66	ND		ug/kg	0.582	0.291	1
Cl5-BZ#87	ND		ug/kg	0.582	0.291	1
Cl5-BZ#101	ND		ug/kg	0.582	0.291	1
Cl5-BZ#105	ND		ug/kg	0.582	0.291	1
Cl5-BZ#118	ND		ug/kg	0.582	0.291	1
Cl6-BZ#128	ND		ug/kg	0.582	0.291	1
Cl6-BZ#138	ND		ug/kg	0.582	0.291	1
Cl6-BZ#153	ND		ug/kg	0.582	0.291	1
Cl7-BZ#170	ND		ug/kg	0.582	0.291	1
Cl7-BZ#180	ND		ug/kg	0.582	0.291	1
Cl7-BZ#183	ND		ug/kg	0.582	0.291	1
Cl7-BZ#184	ND		ug/kg	0.582	0.291	1
Cl7-BZ#187	ND		ug/kg	0.582	0.291	1
Cl8-BZ#195	ND		ug/kg	0.582	0.291	1
Cl9-BZ#206	ND		ug/kg	0.582	0.291	1
Cl10-BZ#209	ND		ug/kg	0.582	0.291	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	**37**	Q	50-125
BZ 198	87		50-125

Project Name: CHPE HUDSON 7 **Lab Number:** L2254040

Project Number: 24711.001 **Report Date:** 10/28/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/25/22 13:39
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 10/20/22 17:25
Cleanup Method: EPA 3630
Cleanup Date: 10/25/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-10 Batch: WG1701954-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	**42**	Q	50-125
BZ 198	98		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHPE HUDSON 7

Project Number: 24711.001

Lab Number: L2254040

Report Date: 10/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-10		Batch: WG1701954-2 WG1701954-3					
Cl2-BZ#8	75		68		40-140	10		30
Cl3-BZ#18	71		67		40-140	6		30
Cl3-BZ#28	75		71		40-140	5		30
Cl4-BZ#44	73		71		40-140	3		30
Cl4-BZ#49	72		70		40-140	3		30
Cl4-BZ#52	72		68		40-140	6		30
Cl4-BZ#66	85		82		40-140	4		30
Cl5-BZ#87	71		70		40-140	1		30
Cl5-BZ#101	69		69		40-140	0		30
Cl5-BZ#105	74		73		40-140	1		30
Cl5-BZ#118	70		68		40-140	3		30
Cl6-BZ#128	73		73		40-140	0		30
Cl6-BZ#138	71		71		40-140	0		30
Cl6-BZ#153	71		70		40-140	1		30
Cl7-BZ#170	76		75		40-140	1		30
Cl7-BZ#180	69		68		40-140	1		30
Cl7-BZ#183	69		68		40-140	1		30
Cl7-BZ#184	69		68		40-140	1		30
Cl7-BZ#187	72		70		40-140	3		30
Cl8-BZ#195	83		82		40-140	1		30
Cl9-BZ#206	102		100		40-140	2		30
Cl10-BZ#209	117		114		40-140	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHPE HUDSON 7

Project Number: 24711.001

Lab Number: L2254040

Report Date: 10/28/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-10 Batch: WG1701954-2 WG1701954-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	**49**	Q	**44**	Q	50-125
BZ 198	107		106		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-01
Client ID: RHINEBECK 1A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:30
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	73.0		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-02
Client ID: RHINEBECK 1B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:40
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	73.4		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-03
Client ID: RHINEBECK 2A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:50
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	58.2		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-04
Client ID: RHINEBECK 2B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 12:00
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	60.3		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-05
Client ID: RHINEBECK 3A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:00
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	53.4		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-06
Client ID: RHINEBECK 3B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 11:15
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	72.7		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-07
Client ID: RHINEBECK 4A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:50
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.4		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-08
Client ID: RHINEBECK 4B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 10:10
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	71.2		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-09
Client ID: RHINEBECK 5A
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:05
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.2		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

SAMPLE RESULTS

Lab ID: L2254040-10
Client ID: RHINEBECK 5B
Sample Location: KINGSTON, NY

Date Collected: 09/29/22 09:10
Date Received: 09/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	67.4		%	0.100	0.100	1	-	10/06/22 13:11	121,2540G	VM

Lab Duplicate Analysis

Batch Quality Control

Project Name: CHPE HUDSON 7

Project Number: 24711.001

Lab Number: L2254040

Report Date: 10/28/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG1696293-1 QC Sample: L2253770-22 Client ID: DUP Sample						
Solids, Total	90.3	91.1	%	1		10

Project Name: CHPE HUDSON 7
Project Number: 24711.001

Lab Number: L2254040
Report Date: 10/28/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2254040-01A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-02A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-03A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-04A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-05A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-06A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-07A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-08A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-09A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2254040-10A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	CHPE HUDSON 7	**Lab Number:**	L2254040
Project Number:	24711.001	**Report Date:**	10/28/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 1

Date Rec'd in Lab: 9/30/22

ALPHA Job #: L2294140

Client Information
Client: Normandeau Assoc.
Address: 400 Old Reading Pk, Stowe, PA 19464
Phone: 717-617-7076
Fax:
Email: DNAZAR1@Normandeau.com

Project Information
Project Name: CHPE Hudson 7
Project Location: Kingston, NY
Project #: 24711.001, Task 10
(Use Project name as Project #)
Project Manager: Mike Mettler
ALPHAQuote #: 16943

Turn-Around Time
Standard: X — Due Date:
Rush (only if pre approved): ☐ — # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
X Same as Client Info
PO #: 24711.001

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

PCB Congeners NOAA 22 8270D-SIM/680(M)

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total # Bottles

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's initials	PCB Congeners	NOAA 22	8270D-SIM	680 (M)	Sample Specific Comments
L2294140-01	Rhinebeck 1A	9-29-22	1230	SO1	NAI	1				
-02	1B		1240			1				
-03	2A		1150			1				
-04	2B		1200			1				
-05	3A		1100			1				
-06	3B		1115			1				
-07	4A		0950			1				
-08	4B		1010			1				
-09	5A		0905			1				
-10	5B		0910			1				

Container Type: GL
Preservative: —

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/29/22 1500	AXL	9/30/22 1058
9/30/22	1530	AAL	9/30/22 1543
AAL	9/30/22 1655		9/30/22 1655

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ORIGIN ID:OICA (717) 617-7076
DONALD NAZARIO - RM 159
NORMANDEAU CO QUALITY INN
114 ROUTE 28
KINGSTON
KINGSTON, NY 12401
UNITED STATES US

SHIP DATE: 29SEP22
ACTWGT: 40.00 LB
CAD: 5720875/INET4530
DIMS: 18x14x14 IN

BILL SENDER

TO SAMPLE RECEIPT
ALPHA ANALYTICAL
8 WALKUP DRIVE

WESTBOROUGH MA 01581
(508) 898-9220
INV
PO DEPT

REF: 34711.001/TASK10 DUN

FedEx Express

FRI - 30 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7700 5210 8728

EM BBFA

MA-US BOS 01581

FedEx Ship Manager - Print Your Label(s)

9/27/22, 5:17 PM

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Team Safety Coordinator: MM
Field Crew: DJN CCB
Arrival & Departure Times: 0824 – 0845
Station ID #: RHINEBECK 5
Weather: (Clear) Cloudy Rain Temp —
Photos: Y (N) File Name: —
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 33 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: RHINE 5 Coring Time: 0834 Penetration Depth: 8 ft. Core Recovery: 7' 5" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: RHINE 5
(Lat) / N: 41 9 28.40776
Lon / E: -73.95933125
PDOP or SVs: 10

Coordinate Units: Lat/Lon Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Crew: DJN CLB
Station ID #: RHINEBECK 4
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0852 - 0910
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 5 - 105

FIELD DATA

Water Depth: 32 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: RHINE 4 Coring Time: 0903 Penetration Depth: 9 ft. Core Recovery: 8' 1" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: RHINE 4
(Lat) / N: 41.930149 29
Lon / E: -73.96003174
PDOP or (SVs): 10

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River		**Proj. #:** 24711.001
Site Name: Hudson River		**Task #:** 10
City: Poughkeepsie	**State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Crew: DJN CLB
Station ID #: RHINEBECK 1
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0917 – 0948
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 5 to 10 SW

FIELD DATA

Water Depth: 31 ft. Tide: (Ebb) Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: RHINE 1 Coring Time: 0929 Penetration Depth: 4 ft. Core Recovery: 3' 8" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: RHINE 1 Coring Time: 0943 Penetration Depth: 7 ft. Core Recovery: 6' 1" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: RHINE 1
Lat / N: 41.931916599
Lon / E: 73.960533623
PDOP or SVs: 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

PUSH #1 HARD REFUSAL

PUSH #2 REFUSAL

Feet of Tubing 20

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
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rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Crew: DM CB
Station ID #: RHINEBECK 3
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1002 – 1017
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 5 – 10 SW

FIELD DATA

Water Depth: 32 ft. Tide: Ebb Flood (Low Slack) High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: RHINE 3 Coring Time: 1010 Penetration Depth: 10 ft. Core Recovery: 9' 9" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: RHINE3
(Lat) / N: 41.93369481
Lon / E: 73.96103980
PDOP or (SVs): 11

Coordinate Units: ~~Lat/Lon~~ Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/28/22

Field Team Leader(s): MM
Field Team Safety Coordinator: MM
Field Crew: DJW CCB
Arrival & Departure Times: 1030 - 1105
Station ID #: RHINEBECK 2
Weather: (Clear) Cloudy Rain Temp ____
Photos: Y (N) File Name: ____
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 33 ft. Tide: Ebb Flood (Low Slack) High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: RHINE 2 Coring Time: 1043 Penetration Depth: 7 ft. Core Recovery: 6' 4" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: RHINE 2
(Lat) / N: 41.935475552
Lon / E: -73.961488400
PDOP or (SVs): 10

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other NAD84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MM

North

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/29/22 Time

PROJECT NUMBER	BORING NUMBER	
24771.001, Task 10	Rhine 5	SHEET 1 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 33
START : 0900 END : 0925 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY1 3/10Y Low plasticity cohesive, Sandy silt with clay fine to medium grain Sands increase with depth. No odor, No Sheen	Rhinebeck 5A VOA taken at 2 ft at 0905 2 x 8oz. jars 1 VOA kit 1 x 4oz. jars
4					↓	Rhinebeck 5B VOA taken at 6ft at 0910 2 x 8oz. jars 1 VOA kit 1 x 4oz. jars
7.5 ft						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/29/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Rhine 4	SHEET 2 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 32
START : 0940 END : 1040 LOGGER : DTN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY1 3/10Y Low plasticity Cohesive, Sandy Silt with clay fine to medium grain sands increase with depth. No odor, no sheen	Rhinebeck 4A VOA taken at 2ft at 0950. 2 x 8 oz. jars 1 VOA kit 1 x 4oz. jar
4					↓	Rhinebeck 4B VOA taken at 6ft. at 1010 2 x 8 oz jars 1 VOA kit 1 x 4oz jar
8'11"						

NAI-Boring Log Form-6/05

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/29/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Rhine 3	SHEET 3 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 32
START : 1055 END : 1130 LOGGER : DJW

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY 1/3/10Y Low plasticity cohesive, sandy silt with clay. Fine to medium grain sands increase with depth NO odor, NO sheen	Rhinebeck 3A VOA taken at 2 ft. at 1100 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4					↓	Rhinebeck 3B VOA taken at 6.5 ft at 1115 2 x 8 oz. jars 1 VOA kit 1 x 4oz jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/29/22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Rhine 2	SHEET 4 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 3.3
START : 1135 END : 1210 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very Soft to Soft very wet to wet GLEY 1 3/10Y Low plasticity cohesive, sandy silt with clay. Fine to medium grain sands increase with depth. No odor, No Sheen	Rhinebeck 2A VOA taken at 2ft. at 1150 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4						Rhinebeck 2B VOA taken at 5ft. at 1200 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
6'4"						

NAI-Boring Log Form-6/05

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/29/22 Time

PROJECT NUMBER	BORING NUMBER	
24711-001, Task 10	Rhine 1	SHEET 5 OF 5

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 31
START : 1220 END : 1300 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to wet GLEY1 3/10Y Low plasticity cohesive, sandy Silt with clay. Fine to medium grain sands increase with depth. No odor, No Sheen	Rhine 1A VOA taken at 2ft. at 1230 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4					↓	Rhine 1B VOA taken at 5ft. at 1240 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
6'1"						

Sediment Core Photos

CHPE Hudson River
Location – Rhinebeck
Project No. 24711.001, Task 10


Rhinebeck 5
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 5
Top
Bottom
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 5
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 4
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 4
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 4
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 3
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 3
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 3
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 2
← Top
Bottom →
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 2
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 1
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7


Rhinebeck 1
←Top
Bottom→
9.29.22
24711.001 CHPE Hudson 7