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Project # 24711.00 /
Task 10


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Project # 24711.001
Task 10


Hyde Park 3
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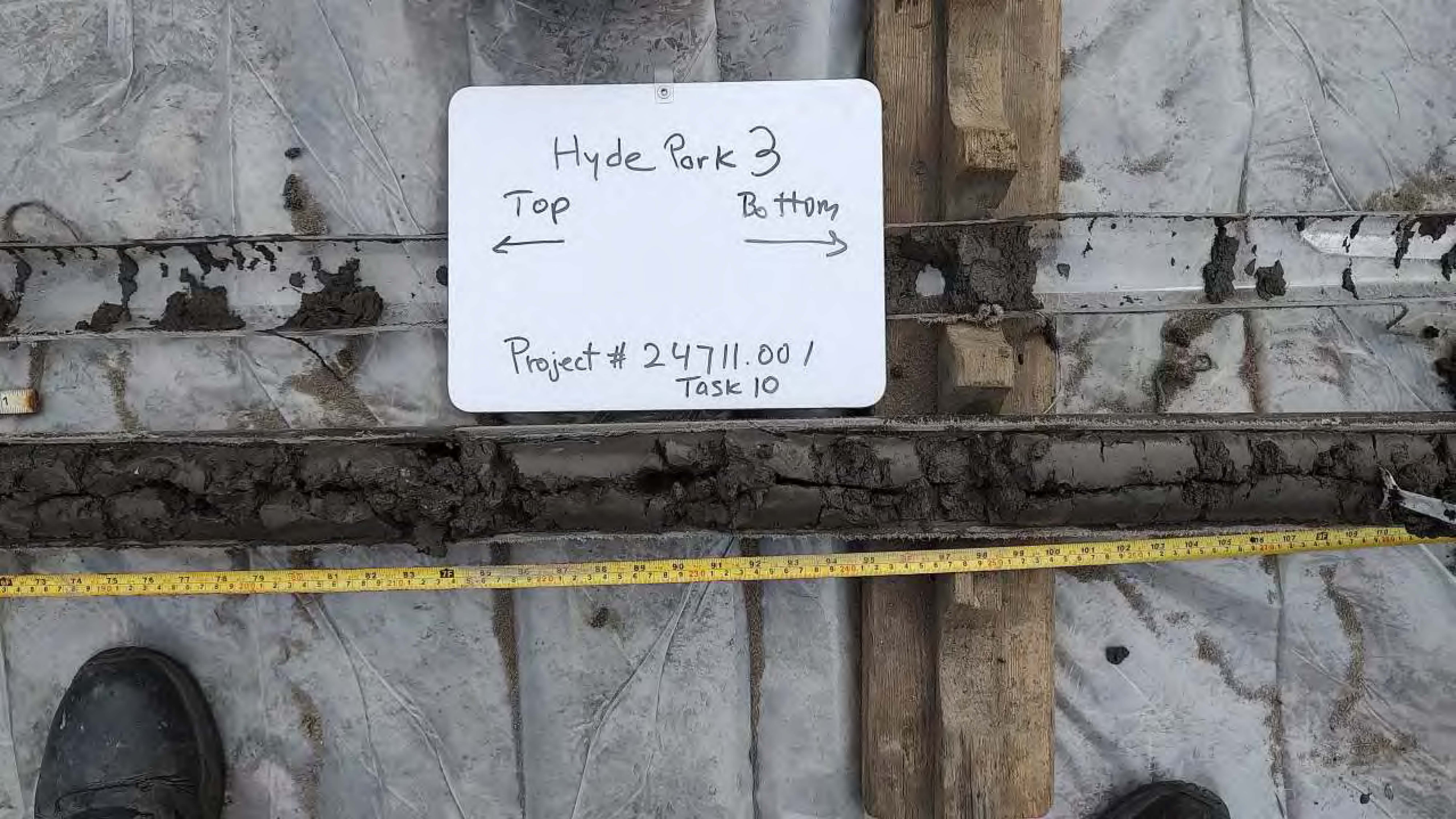
Project # 24711.001
Task 10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Project # 24711.001
Task 10


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Task 10


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Task 10


Hyde Park 5
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Project # 24711.00 /
Task 10


Hyde Park 2
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Project # 24711.00 /
Task 10


Hyde Park 2
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Project # 24711.001
Task 10


Hyde Park 2
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Project # 24711.00 /
Task 10


Hyde Park 1
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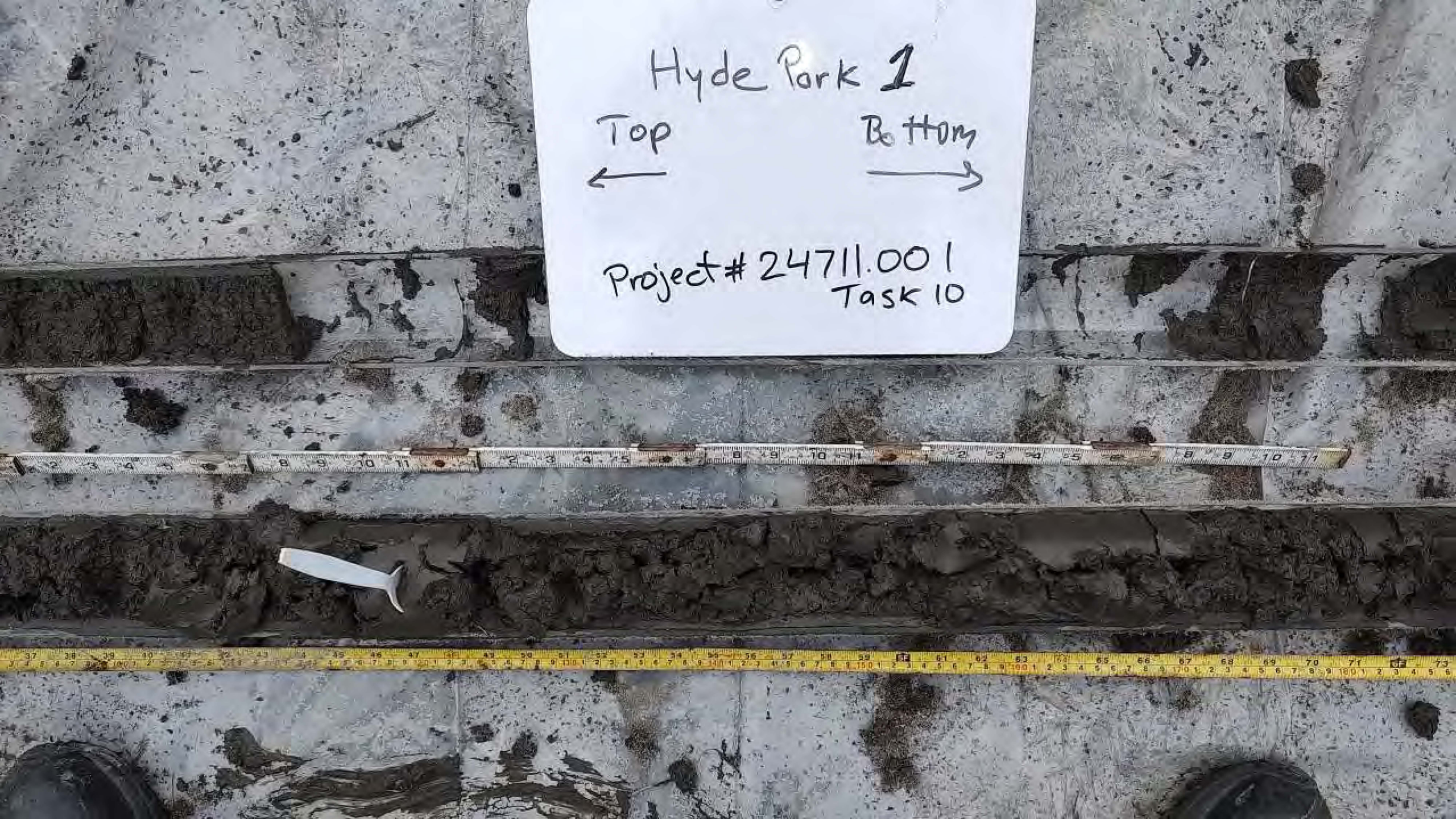
Project # 24711.00 /.
Task 10


Hyde Park 1
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Hyde Park 1
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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.

COC #:

ALS Quote #: 904

3265886

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/#: 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	GL	GL						
	Container Size	40ml	8oz	8oz						
	Preservative	HCl	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, BEST	Dioxin							
							Enter Number of Containers Per Sample or Field Results Below.									
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																

Circle Sample Collector: ALS Tech / Client ID:

Comments:

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	

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
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 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.:

Receipt Information (completed by Receiving Lab)

W.O. Temp: 3.6 Therm ID: IR2

Courier/Tracking #:

Purchase Order #: 3265886

Project Comments:

Subcontract: ALS Houston

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

	Container Type	G									
	Container Size	8oz									
	Perservative	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	DIOXIN METHOD 8290										Sample/COC Comments
						Enter Number of Containers Per Sample or Field Results Below.										
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																

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	9/28/22		2 CDESH	10/1/22	0745
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