

12 October 2023

Work Order: 2308333

Price: \$9,315.00

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909

RE: 108 ADAMS SITE/108 ADAMS STREET,BAY CITY

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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EGLE-RRD-LANSING

525 W. Allegan Street

Lansing MI, 48909

Project: 108 ADAMS SITE/108 ADAMS STREET,BAY CITY

Site Code: Bay City,MI

Project Manager: Janet Michaluk

Reported:
10/12/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
C-2 0.5-1.5	2308333-01	Soil/Sediment	08/22/2023	08/25/2023	
C-2 4-5	2308333-02	Soil/Sediment	08/22/2023	08/25/2023	
C-3 0.5-1.5	2308333-03	Soil/Sediment	08/22/2023	08/25/2023	
C-3 4.5-5.5	2308333-04	Soil/Sediment	08/22/2023	08/25/2023	
H-1 1.5-2.5	2308333-05	Soil/Sediment	08/23/2023	08/25/2023	
H-1 4-5	2308333-06	Soil/Sediment	08/23/2023	08/25/2023	
H-2 1.5-2.5	2308333-07	Soil/Sediment	08/23/2023	08/25/2023	
H-3 4.5-5.5	2308333-08	Soil/Sediment	08/23/2023	08/25/2023	
H-4 1-2	2308333-09	Soil/Sediment	08/23/2023	08/25/2023	
H-4 4.5-5.5	2308333-10	Soil/Sediment	08/23/2023	08/25/2023	
H-5 1.5-2.5	2308333-11	Soil/Sediment	08/23/2023	08/25/2023	
H-5 7.5-8.5	2308333-12	Soil/Sediment	08/23/2023	08/25/2023	
H-6 1.5-2.5	2308333-13	Soil/Sediment	08/23/2023	08/25/2023	
H-6 4.5-5.5	2308333-14	Soil/Sediment	08/23/2023	08/25/2023	

Notes and Definitions

Y17	Probable petroleum product(s) present.
N	Result is estimated due to non-homogeneous sample.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch QC.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result(s) and reporting limit(s) are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
ND	Indicates the analyte was not detected at or above the method reporting limit (RL)
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

Case Narrative

Samples were received **8/25/2023 2:00:00PM** for client **EGLE-RRD-LANSING** as a part of project **108 ADAMS SITE/108 ADAMS STREET,BAY CITY**.

Samples were logged and designated as Work Order # **2308333** on **8/25/2023 2:37:00PM**.

This Report was created **10/12/2023 3:25:09PM**.

Additional Notes/Narrative (if applicable):



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Client ID: C-2 0.5-1.5

Lab ID: 2308333-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	290	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Lab ID: 2308333-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	290	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	150	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3700	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	370	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	73	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			106 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			130 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			121 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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Client ID: C-2 0.5-1.5

Lab ID: 2308333-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	29000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	120000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	

Organics-Semivolatiles

See note Y17

91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
120-12-7	Anthracene	ND	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
56-55-3	Benz[a]anthracene	520	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
50-32-8	Benzo[a]pyrene	510	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
205-99-2	Benzo[b]fluoranthene	690	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
191-24-2	Benzo[g,h,i]perylene	240	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
207-08-9	Benzo[k]fluoranthene	270	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
218-01-9	Chrysene	480	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
206-44-0	Fluoranthene	780	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
85-01-8	Phenanthrene	500	120	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
129-00-0	Pyrene	720	120	ug/kg dry	1	09/12/23	B3H3110	8270	MF	

Surrogate: 2-Fluorobiphenyl	71.8 %	36-133	09/06/23	B3H3110	8270	MF
Surrogate: Nitrobenzene-d5	79.3 %	26-123	09/06/23	B3H3110	8270	MF
Surrogate: p-Terphenyl-d14	95.0 %	36-142	09/06/23	B3H3110	8270	MF



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Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl 93.7 % 27-122 09/27/23 B3I0632 8081/8082 DT

Surrogate: Tetrachloro-m-xylene 70.3 % 35-129 09/27/23 B3I0632 8081/8082 DT

Inorganics-General Chemistry

TS	% Total Solids	86.6	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	1.8	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	45	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	14	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	6.0	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	5.6	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	0.07	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	19	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: C-2 4-5

Lab ID: 2308333-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			92.2 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			115 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			102 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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Client ID: C-2 4-5

Lab ID: 2308333-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3110	8270	MF	
Surrogate: 2-Fluorobiphenyl			66.0 %	36-133		09/06/23	B3H3110	8270	MF	
Surrogate: Nitrobenzene-d5			75.4 %	26-123		09/06/23	B3H3110	8270	MF	
Surrogate: p-Terphenyl-d14			90.9 %	36-142		09/06/23	B3H3110	8270	MF	



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Lab ID: 2308333-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PCBs as Aroclors										
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Decachlorobiphenyl</i>			68.3 %	27-122		09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Tetrachloro-m-xylene</i>			73.5 %	35-129		09/13/23	B3I0632	8081/8082	DT	
Inorganics-General Chemistry										
TS	% Total Solids	90.6	0.1	%	1	08/28/23	B3H2850	2540 G	BL	
Inorganics-Metals										
7440-38-2	Arsenic	2.0	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	24	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	10	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	6.8	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	2.6	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	13	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: C-3 0.5-1.5

Lab ID: 2308333-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: C-3 0.5-1.5

Lab ID: 2308333-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			110 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			134 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			122 %	55.4-196		08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: C-3 0.5-1.5

Lab ID: 2308333-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	29000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	120000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	220	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	840	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	860	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	1200	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	320	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	430	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	830	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	1500	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	310	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	1200	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	1400	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			64.0 %	36-133		09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			75.8 %	26-123		09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			90.4 %	36-142		09/06/23	B3H3111	8270	MF	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/27/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl			85.5 %	27-122		09/27/23	B3I0632	8081/8082	DT	
Surrogate: Tetrachloro-m-xylene			66.9 %	35-129		09/27/23	B3I0632	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	86.9	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	22	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	48	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	0.3	0.2	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-47-3	Chromium	5.2	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	120	10	mg/kg dry	100	09/13/23	B3H3119	200.8	CL	
7439-92-1	Lead	190	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	0.08	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.7	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	0.2	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	88	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Lab ID: 2308333-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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FAX: (517) 335-9600

Client ID: C-3 4.5-5.5

Lab ID: 2308333-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	68	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			93.8 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			115 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			105 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	30000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	120000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	240	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	120	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			65.7 %	36-133		09/05/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			79.6 %	26-123		09/05/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			97.9 %	36-142		09/05/23	B3H3111	8270	MF	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: C-3 4.5-5.5

Lab ID: 2308333-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl

73.8 %

27-122

09/13/23

B3I0632

8081/8082

DT

Surrogate: Tetrachloro-m-xylene

80.8 %

35-129

09/13/23

B3I0632

8081/8082

DT

Inorganics-General Chemistry

TS	% Total Solids	84.0	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	4.5	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	55	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	20	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	12	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	5.2	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.5	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	25	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-1 1.5-2.5

Lab ID: 2308333-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: H-1 1.5-2.5

Lab ID: 2308333-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			122 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			143 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			136 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: H-1 1.5-2.5

Lab ID: 2308333-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	27000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	

Surrogate: 2-Fluorobiphenyl		59.8 %	36-133	09/05/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5		73.8 %	26-123	09/05/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14		89.8 %	36-142	09/05/23	B3H3111	8270	MF	



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Client ID: H-1 1.5-2.5

Lab ID: 2308333-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl 62.6 % 27-122 09/13/23 B3I0632 8081/8082 DT

Surrogate: Tetrachloro-m-xylene 69.8 % 35-129 09/13/23 B3I0632 8081/8082 DT

Inorganics-General Chemistry

TS	% Total Solids	91.5	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	3.1	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	28	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	11	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	8.1	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	3.0	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	14	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-1 4-5

Lab ID: 2308333-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-1 4-5

Lab ID: 2308333-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			92.2 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			111 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			101 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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TEL: (517) 335-9800
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Client ID: H-1 4-5

Lab ID: 2308333-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			61.5 %	36-133		09/05/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			76.8 %	26-123		09/05/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			91.7 %	36-142		09/05/23	B3H3111	8270	MF	



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Client ID: H-1 4-5

Lab ID: 2308333-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Decachlorobiphenyl</i>			67.0 %	27-122		09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Tetrachloro-m-xylene</i>			75.5 %	35-129		09/13/23	B3I0632	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	89.8	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	3.0	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	36	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	9.5	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	3.5	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	83	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-2 1.5-2.5

Lab ID: 2308333-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: H-2 1.5-2.5

Lab ID: 2308333-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			109 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			124 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			115 %	55.4-196		08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
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MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-2 1.5-2.5

Lab ID: 2308333-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	MF	

Surrogate: 2-Fluorobiphenyl		60.1 %	36-133	09/05/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5		74.0 %	26-123	09/05/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14		90.3 %	36-142	09/05/23	B3H3111	8270	MF	



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Client ID: H-2 1.5-2.5

Lab ID: 2308333-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl 69.4 % 27-122 09/13/23 B3I0632 8081/8082 DT

Surrogate: Tetrachloro-m-xylene 74.7 % 35-129 09/13/23 B3I0632 8081/8082 DT

Inorganics-General Chemistry

TS	% Total Solids	89.8	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	3.3	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	36	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	14	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	8.8	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	3.4	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	19	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-3 4.5-5.5

Lab ID: 2308333-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-3 4.5-5.5

Lab ID: 2308333-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			88.2 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			105 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			99.4 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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Lab ID: 2308333-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			58.9 %	36-133		09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			73.3 %	26-123		09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			88.5 %	36-142		09/06/23	B3H3111	8270	MF	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-3 4.5-5.5

Lab ID: 2308333-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl

65.8 %

27-122

09/13/23

B3I0632

8081/8082

DT

Surrogate: Tetrachloro-m-xylene

71.1 %

35-129

09/13/23

B3I0632

8081/8082

DT

Inorganics-General Chemistry

TS	% Total Solids	89.8	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	2.9	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	34	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	8.9	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	3.2	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	19	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-4 1-2

Lab ID: 2308333-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: H-4 1-2

Lab ID: 2308333-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			101 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			118 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			113 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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TEL: (517) 335-9800
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Client ID: H-4 1-2

Lab ID: 2308333-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/05/23	B3I0107	8015	AR	

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	

Surrogate: 2-Fluorobiphenyl		61.8 %	36-133	09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5		75.8 %	26-123	09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14		88.4 %	36-142	09/06/23	B3H3111	8270	MF	



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Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl

75.8 %

27-122

09/13/23

B3I0632

8081/8082

DT

Surrogate: Tetrachloro-m-xylene

84.2 %

35-129

09/13/23

B3I0632

8081/8082

DT

Inorganics-General Chemistry

TS	% Total Solids	89.1	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	2.9	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	25	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	12	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	9.0	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	3.3	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	16	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-4 4.5-5.5

Lab ID: 2308333-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: H-4 4.5-5.5

Lab ID: 2308333-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			89.3 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			109 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			99.6 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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Client ID: H-4 4.5-5.5

Lab ID: 2308333-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			58.6 %	36-133		09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			73.7 %	26-123		09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			85.1 %	36-142		09/06/23	B3H3111	8270	MF	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Decachlorobiphenyl</i>			73.5 %	27-122		09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Tetrachloro-m-xylene</i>			82.7 %	35-129		09/13/23	B3I0632	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	89.9	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	2.0	0.5	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-39-3	Barium	29	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-47-3	Chromium	11	2.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-50-8	Copper	7.9	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-92-1	Lead	2.6	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3H3119	200.8	CL	
7440-66-6	Zinc	13	1.0	mg/kg dry	10	09/08/23	B3H3119	200.8	CL	



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Client ID: H-5 1.5-2.5

Lab ID: 2308333-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: H-5 1.5-2.5

Lab ID: 2308333-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	150	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3800	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	380	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	77	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			94.2 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			114 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			103 %	55.4-196		08/30/23	B3H2932	8260	SJR	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-5 1.5-2.5

Lab ID: 2308333-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	30000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	120000	ug/kg dry	1	09/06/23	B3I0107	8015	AR	

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	240	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	

Surrogate: 2-Fluorobiphenyl		60.0 %	36-133	09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5		75.3 %	26-123	09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14		86.7 %	36-142	09/06/23	B3H3111	8270	MF	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	

Surrogate: Decachlorobiphenyl			76.9 %	27-122		09/13/23	B3I0632	8081/8082	DT	
Surrogate: Tetrachloro-m-xylene			84.7 %	35-129		09/13/23	B3I0632	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	83.9	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	3.1	0.5	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-39-3	Barium	63	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-47-3	Chromium	20	2.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-50-8	Copper	8.5	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-92-1	Lead	5.5	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.4	0.2	mg/kg dry	10	09/13/23	B3I0110	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-66-6	Zinc	23	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	



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Client ID: H-5 7.5-8.5

Lab ID: 2308333-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	



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Client ID: H-5 7.5-8.5

Lab ID: 2308333-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/30/23	B3H2932	8260	SJR	
Surrogate: Bromofluorobenzene			95.8 %	40.3-194		08/30/23	B3H2932	8260	SJR	
Surrogate: Dibromofluoromethane			113 %	52.1-217		08/30/23	B3H2932	8260	SJR	
Surrogate: Toluene-d8			103 %	55.4-196		08/30/23	B3H2932	8260	SJR	



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Client ID: H-5 7.5-8.5

Lab ID: 2308333-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/07/23	B3I0108	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/07/23	B3I0108	8015	AR	A05
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
Surrogate: 2-Fluorobiphenyl			58.1 %	36-133		09/06/23	B3H3111	8270	MF	
Surrogate: Nitrobenzene-d5			73.8 %	26-123		09/06/23	B3H3111	8270	MF	
Surrogate: p-Terphenyl-d14			87.5 %	36-142		09/06/23	B3H3111	8270	MF	



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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-5 7.5-8.5

Lab ID: 2308333-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Decachlorobiphenyl</i>			75.3 %	27-122		09/13/23	B3I0632	8081/8082	DT	
<i>Surrogate: Tetrachloro-m-xylene</i>			84.9 %	35-129		09/13/23	B3I0632	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	89.5	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	2.8	0.5	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-39-3	Barium	33	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-50-8	Copper	9.6	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-92-1	Lead	3.6	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-66-6	Zinc	20	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	



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TEL: (517) 335-9800
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Client ID: H-6 1.5-2.5

Lab ID: 2308333-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
71-43-2	Benzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-25-2	Bromoform	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
67-66-3	Chloroform	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	



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Client ID: H-6 1.5-2.5

Lab ID: 2308333-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
110-54-3	Hexane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-37-7	Methylcyclopentane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
142-82-5	n-Heptane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-47-6	o-Xylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
100-42-5	Styrene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-88-3	Toluene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
Surrogate: Bromofluorobenzene			90.0 %	40.3-194		08/30/23	B3H3112	8260	SJR	
Surrogate: Dibromofluoromethane			112 %	52.1-217		08/30/23	B3H3112	8260	SJR	
Surrogate: Toluene-d8			104 %	55.4-196		08/30/23	B3H3112	8260	SJR	



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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: H-6 1.5-2.5

Lab ID: 2308333-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	29000	ug/kg dry	1	09/06/23	B3I0108	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	120000	ug/kg dry	1	09/06/23	B3I0108	8015	AR	A05

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
120-12-7	Anthracene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
56-55-3	Benz[a]anthracene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
218-01-9	Chrysene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
206-44-0	Fluoranthene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
85-01-8	Phenanthrene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	
129-00-0	Pyrene	ND	120	ug/kg dry	1	09/06/23	B3H3111	8270	MF	

Surrogate: 2-Fluorobiphenyl		61.4 %	36-133	09/06/23	B3H3111	8270	MF
Surrogate: Nitrobenzene-d5		77.8 %	26-123	09/06/23	B3H3111	8270	MF
Surrogate: p-Terphenyl-d14		93.7 %	36-142	09/06/23	B3H3111	8270	MF



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Lab ID: 2308333-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	09/11/23	B3I0633	8081/8082	DT	

Surrogate: Decachlorobiphenyl			92.7 %	27-122		09/11/23	B3I0633	8081/8082	DT	
Surrogate: Tetrachloro-m-xylene			87.9 %	35-129		09/11/23	B3I0633	8081/8082	DT	

Inorganics-General Chemistry

TS	% Total Solids	87.0	0.1	%	1	08/28/23	B3H2850	2540 G	BL	

Inorganics-Metals

7440-38-2	Arsenic	4.2	0.5	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-39-3	Barium	41	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-47-3	Chromium	14	2.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-50-8	Copper	9.4	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-92-1	Lead	3.2	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/13/23	B3I0110	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-66-6	Zinc	15	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	



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Client ID: H-6 4.5-5.5

Lab ID: 2308333-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-12-8	1,2-Dibromo-3-chloropropane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
540-84-1	2,2,4-Trimethylpentane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	A05
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
71-43-2	Benzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-25-2	Bromoform	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
67-66-3	Chloroform	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	



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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: H-6 4.5-5.5

Lab ID: 2308333-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-Volatiles										
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
110-54-3	Hexane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
96-37-7	Methylcyclopentane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
142-82-5	n-Heptane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
100-42-5	Styrene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
108-88-3	Toluene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	08/30/23	B3H3112	8260	SJR	
Surrogate: Bromofluorobenzene			90.1 %	40.3-194		08/30/23	B3H3112	8260	SJR	
Surrogate: Dibromofluoromethane			110 %	52.1-217		08/30/23	B3H3112	8260	SJR	
Surrogate: Toluene-d8			100 %	55.4-196		08/30/23	B3H3112	8260	SJR	



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TEL: (517) 335-9800
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Client ID: H-6 4.5-5.5

Lab ID: 2308333-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-DRO/ORO										
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/06/23	B3I0108	8015	AR	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0108	8015	AR	A05
Organics-Semivolatiles										
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	MF	
Surrogate: 2-Fluorobiphenyl			69.7 %	36-133		09/06/23	B3I0416	8270	MF	
Surrogate: Nitrobenzene-d5			86.7 %	26-123		09/06/23	B3I0416	8270	MF	
Surrogate: p-Terphenyl-d14			101 %	36-142		09/06/23	B3I0416	8270	MF	



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TEL: (517) 335-9800
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Client ID: H-6 4.5-5.5

Lab ID: 2308333-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Analyst	Qualifier
Organics-PCBs as Aroclors										
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/12/23	B3I0633	8081/8082	DT	
<i>Surrogate: Decachlorobiphenyl</i>			90.4 %	27-122		09/12/23	B3I0633	8081/8082	DT	
<i>Surrogate: Tetrachloro-m-xylene</i>			91.3 %	35-129		09/12/23	B3I0633	8081/8082	DT	
Inorganics-General Chemistry										
TS	% Total Solids	89.7	0.1	%	1	08/28/23	B3H2850	2540 G	BL	
Inorganics-Metals										
7440-38-2	Arsenic	2.2	0.5	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-39-3	Barium	27	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7440-50-8	Copper	7.1	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-92-1	Lead	3.1	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/12/23	B3I0718	245.5	JP1	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/12/23	B3I0110	200.8	CL	
7440-66-6	Zinc	46	1.0	mg/kg dry	10	09/08/23	B3I0110	200.8	CL	

Analysis Request Sheet

Lab Work Order Number 2308333		Project Name 108 Adams Site/108 Adams Street, Bay City		Matrix SOIL/SEDIMENT
Location ID Bay City, MI	Program tonia.nack wpmnuva	CC Email 1 tonia.nack wpmnuva	Project TAT Days	Sample Collector Monica Doster +
Dept-Division-District EGLE-RRD-Lansing	Activity	CC Email 2	Project Due Date	Sample Collector Phone (586) 612-4766
State Project Manager Janet Michaluk	Funding Source RME	CC Email 3	Accept Analysis hold time codes	Contract Firm PM Environmental
State Project Manager Email jnichaluk@michigan.gov	Location Code 6J76	Overflow Lab Choice 1		Contract Firm Primary Contact T. Hack
State Project Manager Phone 517-643-0314	SUD Location Code	Overflow Lab Choice 2		Primary Contact Phone 248-414-1463

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	01 C-2 0.5-1.5	8/22/23	1400	2	
2	02 C-2 4-5		1405	1	
3	03 C-3 0.5-1.5		1445	1	
4	04 C-3 4.5-5.5		1450	1	
5	05 H-1 1.5-2.5	8/23/23	925	33	asbestos sample
6	06 H-1 4-5		930	1	
7	07 H-2 1.5-2.5		945	1	
8	08 H-3 4.5-5.5		1005	1	
9	09 H-4 1-2		1025	1	
10	10 H-4 4.5-5.5		1030	1	

ORGANIC CHEMISTRY	METALS CHEMISTRY PACKAGES	MS - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids Volatiles - Full List 1 2 3 4 5 6 7 8 9 10 BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10 OS - Pesticides, PCBs Pesticides & PCBs 1 2 3 4 5 6 7 8 9 10 Pesticides only 1 2 3 4 5 6 7 8 9 10 PCBs only 1 2 3 4 5 6 7 8 9 10 Toxaphene 1 2 3 4 5 6 7 8 9 10 BNA - Base Neutral Acids BNAs 1 2 3 4 5 6 7 8 9 10 PNAs only 1 2 3 4 5 6 7 8 9 10 BNs only 1 2 3 4 5 6 7 8 9 10 Organic Specialty Requests Library search - Volatiles 1 2 3 4 5 6 7 8 9 10 Library search - SemiVols 1 2 3 4 5 6 7 8 9 10 Finger Print 1 2 3 4 5 6 7 8 9 10 DRO / ORO 1 2 3 4 5 6 7 8 9 10	OpMemo2 - Total 1 2 3 4 5 6 7 8 9 10 (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,V,Zn) Michigan10 - Total 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	Silver - Ag 1 2 3 4 5 6 7 8 9 10 Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Arsenic - As 1 2 3 4 5 6 7 8 9 10 Barium - Ba 1 2 3 4 5 6 7 8 9 10 Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Copper - Cu 1 2 3 4 5 6 7 8 9 10 Iron - Fe 1 2 3 4 5 6 7 8 9 10 Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Lithium - Li 1 2 3 4 5 6 7 8 9 10 Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Lead - Pb 1 2 3 4 5 6 7 8 9 10 Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Selenium - Se 1 2 3 4 5 6 7 8 9 10 Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Uranium - U 1 2 3 4 5 6 7 8 9 10 Vanadium - V 1 2 3 4 5 6 7 8 9 10 Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Potassium - K 1 2 3 4 5 6 7 8 9 10 Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Sodium - Na 1 2 3 4 5 6 7 8 9 10	GS - General Chemistry Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Signature: Monica Doster + / PME	PM Storage	8/22/23
	Print Name & Org. Signature: Dylan Koch	Melissa Smith	8/25/23 800
	Print Name & Org. Signature: [Signature]		8/25/23 1400

Analysis Request Sheet

Lab Work Order Number 2308333		Project Name 108 Adams Site/108 Adams Street, Bay City		Matrix Water Soil	
Location ID Bay City, MI		Program tonia.nava@pmev.com		Project TAT Days	
Dept-Division-District EGLE-RRD-Lansing		CC Email 2		Project Due Date	
State Project Manager Janet Michaluk		Funding Source RME		Sample Collector Monica Dostert	
State Project Manager Email michalukj@michigan.gov		CC Email 3		Sample Collector Phone (810) 612-4766	
State Project Manager Phone 517-643-0314		Location Code 6J76		Contract Firm PM Environmental	
		Overflow Lab Choice 1		Contract Firm Primary Contact T. Hack	
		Overflow Lab Choice 2		Primary Contact Phone 248-414-1463	

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	11 H-5 1.5-2.5	8/23/23	1045	3	sample for asbestos
2	12 H-5 7.5-8.5		1050	1	
3	13 H-6 1.5-2.5		1120	1	
4	14 H-6 4.5-5.5		1125	1	
5	C-4 0.5-1.5		1150	2	no asbestos
6	C-4 3.5-4.5		1155	2	no asbestos
7	C-5 1-2		1225	2	no asbestos
8	C-5 14-15		1230	2	no asbestos
9	C-6 0.5-1.5		1315	2	no asbestos
10	C-6 7-8		1320	2	had no asbestos

ORGANIC CHEMISTRY		MAD - DISSOLVED METALS		MA - TOTAL METALS		GENERAL CHEMISTRY	
VOA - Volatile Organic Acids	1 2 3 4 5 6 7 8 9 10	Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10	Silver - Ag	1 2 3 4 5 6 7 8 9 10	GB Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10	Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10	Aluminum - Al	1 2 3 4 5 6 7 8 9 10	GCN Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10	Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10	Arsenic - As	1 2 3 4 5 6 7 8 9 10	(Amenable / Weak Acid Dissociable)	
Chlorinated only	1 2 3 4 5 6 7 8 9 10	Diss - Boron - B	1 2 3 4 5 6 7 8 9 10	Boron - B	1 2 3 4 5 6 7 8 9 10	CA Chlorophyll	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10	Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10	Barium - Ba	1 2 3 4 5 6 7 8 9 10	GN Ortho-Phosphate - OP	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10	Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10	Beryllium - Be	1 2 3 4 5 6 7 8 9 10	GN Diss Ortho Phosphate - FF1	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10	Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10	Cadmium - Cd	1 2 3 4 5 6 7 8 9 10	GN Nitrate - NO ₃	1 2 3 4 5 6 7 8 9 10
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10	Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10	Cobalt - Co	1 2 3 4 5 6 7 8 9 10	GN Nitrate - NO ₃ (Calc.)	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	1 2 3 4 5 6 7 8 9 10	Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10	Chromium - Cr	1 2 3 4 5 6 7 8 9 10	GN Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10	Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10	Copper - Cu	1 2 3 4 5 6 7 8 9 10	GN Dissolved Solids - TDS	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10	Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10	Iron - Fe	1 2 3 4 5 6 7 8 9 10	MN Diss Solids - TDS (Calc.)	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10	Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10	Mercury - Hg	1 2 3 4 5 6 7 8 9 10	GN Turbidity	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10	Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10	Lithium - Li	1 2 3 4 5 6 7 8 9 10	MN Total Alkalinity	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10	Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10	Manganese - Mn	1 2 3 4 5 6 7 8 9 10	MN Bicarb/Carb Alkalinity	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	1 2 3 4 5 6 7 8 9 10	Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10	Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10	(Includes Total Alkalinity)	
BNAs	1 2 3 4 5 6 7 8 9 10	Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10	Nickel - Ni	1 2 3 4 5 6 7 8 9 10	MN Chloride - Cl	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10	Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10	Lead - Pb	1 2 3 4 5 6 7 8 9 10	MN Fluoride - F	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10	Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10	Antimony - Sb	1 2 3 4 5 6 7 8 9 10	MN Sulfate - SO ₄	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10	Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10	Selenium - Se	1 2 3 4 5 6 7 8 9 10	MN Diss Chromium 6 - FF	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10	Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10	Strontium - Sr	1 2 3 4 5 6 7 8 9 10	MN Conductivity	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests		Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10	Titanium - Ti	1 2 3 4 5 6 7 8 9 10	MN pH	1 2 3 4 5 6 7 8 9 10
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10	Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10	Thallium - Tl	1 2 3 4 5 6 7 8 9 10	GA Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10	Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10	Uranium - U	1 2 3 4 5 6 7 8 9 10	GA Diss Org Carbon - DOC *FF1	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10	Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10	Vanadium - V	1 2 3 4 5 6 7 8 9 10	GN Diss Org Carbon - DOC (LF, 1)	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10	Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10	Zinc - Zn	1 2 3 4 5 6 7 8 9 10	(Lab - Filtered & Preserved)	
METALS CHEMISTRY PACKAGES		Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10	Calcium - Ca	1 2 3 4 5 6 7 8 9 10	GA Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10	Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10	Potassium - K	1 2 3 4 5 6 7 8 9 10	GA Ammonia - NH ₃	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	1 2 3 4 5 6 7 8 9 10	Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10	Magnesium - Mg	1 2 3 4 5 6 7 8 9 10	GA Nitrate+Nitrite - NO ₃ +NO ₂	1 2 3 4 5 6 7 8 9 10
(Sb,As,Ba,Bi,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,V,Zn)	1 2 3 4 5 6 7 8 9 10	Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10	Sodium - Na	1 2 3 4 5 6 7 8 9 10	GA Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10	Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10	Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10	GA Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10	MD - Metals Dissolved		LHG - Low Level Mercury			
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)		Lab Filtration	1 2 3 4 5 6 7 8 9 10	Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10		

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Monica Dostert / PME	PM Storage	8/23/23
	Signature: <i>Monica Dostert</i>		
	Print Name & Org. Dylan Ross	Melissa Smith	8/25/23 8:00
	Signature: <i>Dylan Ross</i>	<i>Melissa Smith</i>	8/25/23 14:00
	Print Name & Org.		
	Signature:		

CORRECTED REPORT

13 October 2023

Work Order: 2308330

Price: \$9,117.50

Janet Michaluk
EGLE-RRD-LANSING
525 W. Allegan Street
Lansing, MI 48909
RE: 108 ADAMS SITE/108 ADAMS STREET,BAY CITY

A correction has been made to the original report that was sent to you. A description of the correction should be present in the case narrative section of this report in order to clarify any changes.

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director



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CORRECTED REPORT

EGLE-RRD-LANSING

525 W. Allegan Street

Lansing MI, 48909

Project: 108 ADAMS SITE/108 ADAMS STREET,BAY CITY

Site Code: Bay City,MI

Project Manager: Janet Michaluk

Reported:

10/13/2023

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
C-6 14-15	2308330-01	Soil/Sediment	08/23/2023	08/25/2023	
F-3 0.5-1.5	2308330-02	Soil/Sediment	08/23/2023	08/25/2023	
F-3 4.5-5.5	2308330-03	Soil/Sediment	08/23/2023	08/25/2023	
F-2 3.5-4.5	2308330-04	Soil/Sediment	08/23/2023	08/25/2023	
F-2 10.5-11.5	2308330-05	Soil/Sediment	08/23/2023	08/25/2023	
F-1 3.5-4.5	2308330-06	Soil/Sediment	08/23/2023	08/25/2023	
F-1 14-15	2308330-07	Soil/Sediment	08/23/2023	08/25/2023	
H-7 0.5-1.5	2308330-08	Soil/Sediment	08/24/2023	08/25/2023	
H-7 4-5	2308330-09	Soil/Sediment	08/24/2023	08/25/2023	
G1 4-5'	2308330-10	Soil/Sediment	08/24/2023	08/25/2023	
G1 14-15'	2308330-11	Soil/Sediment	08/24/2023	08/25/2023	
G2 .5-1.5'	2308330-12	Soil/Sediment	08/24/2023	08/25/2023	
G2 9-10'	2308330-13	Soil/Sediment	08/24/2023	08/25/2023	
G3 1.5-2.5'	2308330-14	Soil/Sediment	08/24/2023	08/25/2023	
G3 9.5-10.5'	2308330-15	Soil/Sediment	08/24/2023	08/25/2023	
G4 1.5-2.5'	2308330-16	Soil/Sediment	08/24/2023	08/25/2023	
G4 10-11'	2308330-17	Soil/Sediment	08/24/2023	08/25/2023	
G5 3.5-4.5'	2308330-18	Soil/Sediment	08/24/2023	08/25/2023	
G5 10-11'	2308330-19	Soil/Sediment	08/24/2023	08/25/2023	

Notes and Definitions

A11	Result is estimated due to high initial verification standard criteria failure.
A10	Result(s) and reporting limit(s) are estimated due to low initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch QC.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result(s) and reporting limit(s) are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
ND	Indicates compound analyzed for but not detected at or above the reporting limit (RL).
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis



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CORRECTED REPORT

Case Narrative

Samples were received **8/25/2023 11:40:00AM** for client **EGLE-RRD-LANSING** as a part of project **108 ADAMS SITE/108 ADAMS STREET,BAY CITY**.

Samples were logged and designated as Work Order # **2308330** on **8/25/2023 2:04:00PM**.

This Report was created **10/13/2023 2:57:57PM**.

Additional Notes/Narrative (if applicable):

This is an amended report. This report for laboratory work order 2308330, 108 ADAMS SITE/108 ADAMS STREET,BAY CITY, received on 08/25/2023 11:40 has been modified from the original report. Lead results were not included in the previous report. Please see new report.



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CORRECTED REPORT

Client ID: C-6 14-15

Lab ID: 2308330-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: C-6 14-15

Lab ID: 2308330-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			106 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			113 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			103 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: C-6 14-15

Lab ID: 2308330-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	27000	ug/kg dry	1	08/29/23	B3H2831	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	08/29/23	B3H2831	8015	

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	

Surrogate: 2-Fluorobiphenyl 60.9 % 36-133 09/05/23 B3H3111 8270

Surrogate: Nitrobenzene-d5 75.6 % 26-123 09/05/23 B3H3111 8270

Surrogate: p-Terphenyl-d14 89.8 % 36-142 09/05/23 B3H3111 8270



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CORRECTED REPORT

Client ID: C-6 14-15

Lab ID: 2308330-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	

Surrogate: Decachlorobiphenyl

93.3 %

27-122

09/08/23

B3I0545

8081/8082

Surrogate: Tetrachloro-m-xylene

92.2 %

35-129

09/08/23

B3I0545

8081/8082

Inorganics-General Chemistry

TS	% Total Solids	91.0	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	1.3	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	23	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	10	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	6.3	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	2.4	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/05/23	B3H3120	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	30	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: F-3 0.5-1.5

Lab ID: 2308330-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-3 0.5-1.5

Lab ID: 2308330-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiary Amyl methylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			122 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			127 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			118 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-3 0.5-1.5

Lab ID: 2308330-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	08/30/23	B3H2831	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	08/30/23	B3H2831	8015	
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3H3111	8270	
Surrogate: 2-Fluorobiphenyl			65.3 %	36-133		09/06/23	B3H3111	8270	
Surrogate: Nitrobenzene-d5			73.3 %	26-123		09/06/23	B3H3111	8270	
Surrogate: p-Terphenyl-d14			92.5 %	36-142		09/06/23	B3H3111	8270	



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CORRECTED REPORT

Client ID: F-3 0.5-1.5

Lab ID: 2308330-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
Surrogate: Decachlorobiphenyl			71.1 %	27-122		09/08/23	B3I0545	8081/8082	
Surrogate: Tetrachloro-m-xylene			73.0 %	35-129		09/08/23	B3I0545	8081/8082	

Inorganics-General Chemistry

TS	% Total Solids	89.6	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	2.3	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	29	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	12	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	6.9	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	9.2	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/05/23	B3H3120	245.5	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	26	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: F-3 4.5-5.5

Lab ID: 2308330-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: F-3 4.5-5.5

Lab ID: 2308330-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			107 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			115 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			107 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-3 4.5-5.5

Lab ID: 2308330-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/06/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0108	8015	A05

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	

Surrogate: 2-Fluorobiphenyl 60.2 % 36-133 09/05/23 B3H3111 8270

Surrogate: Nitrobenzene-d5 73.9 % 26-123 09/05/23 B3H3111 8270

Surrogate: p-Terphenyl-d14 87.1 % 36-142 09/05/23 B3H3111 8270



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CORRECTED REPORT

Client ID: F-3 4.5-5.5

Lab ID: 2308330-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
Surrogate: Decachlorobiphenyl		95.7 %	27-122			09/08/23	B3I0545	8081/8082	
Surrogate: Tetrachloro-m-xylene		95.3 %	35-129			09/08/23	B3I0545	8081/8082	

Inorganics-General Chemistry

TS	% Total Solids	90.5	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	2.5	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	31	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	12	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	7.5	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	3.2	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/05/23	B3H3120	245.5	
7782-49-2	Selenium	0.3	0.2	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	17	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: F-2 3.5-4.5

Lab ID: 2308330-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-2 3.5-4.5

Lab ID: 2308330-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			108 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			120 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			104 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-2 3.5-4.5

Lab ID: 2308330-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	26000	ug/kg dry	1	09/07/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/07/23	B3I0108	8015	A05
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	260	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	210	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
Surrogate: 2-Fluorobiphenyl			57.7 %	36-133		09/05/23	B3H3111	8270	
Surrogate: Nitrobenzene-d5			70.0 %	26-123		09/05/23	B3H3111	8270	
Surrogate: p-Terphenyl-d14			86.5 %	36-142		09/05/23	B3H3111	8270	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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CORRECTED REPORT

Client ID: F-2 3.5-4.5

Lab ID: 2308330-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	

Surrogate: Decachlorobiphenyl

99.4 %

27-122

09/08/23

B3I0545

8081/8082

Surrogate: Tetrachloro-m-xylene

97.4 %

35-129

09/08/23

B3I0545

8081/8082

Inorganics-General Chemistry

TS	% Total Solids	94.5	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	1.2	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	5.5	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	3.0	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	2.3	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	1.8	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	12	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: F-2 10.5-11.5

Lab ID: 2308330-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	



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P.O. Box 30270
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CORRECTED REPORT

Client ID: F-2 10.5-11.5

Lab ID: 2308330-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			107 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			114 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			103 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-2 10.5-11.5

Lab ID: 2308330-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	27000	ug/kg dry	1	09/06/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0108	8015	A05

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	

Surrogate: 2-Fluorobiphenyl 66.1 % 36-133 09/05/23 B3H3111 8270

Surrogate: Nitrobenzene-d5 82.6 % 26-123 09/05/23 B3H3111 8270

Surrogate: p-Terphenyl-d14 98.4 % 36-142 09/05/23 B3H3111 8270



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CORRECTED REPORT

Client ID: F-2 10.5-11.5

Lab ID: 2308330-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
Surrogate: Decachlorobiphenyl			91.9 %	27-122		09/08/23	B3I0545	8081/8082	
Surrogate: Tetrachloro-m-xylene			89.3 %	35-129		09/08/23	B3I0545	8081/8082	

Inorganics-General Chemistry

TS	% Total Solids	91.5	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	1.0	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	18	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	6.5	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	3.5	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	1.5	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	7.2	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: F-1 3.5-4.5

Lab ID: 2308330-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	



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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: F-1 3.5-4.5

Lab ID: 2308330-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			114 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			127 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			115 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-1 3.5-4.5

Lab ID: 2308330-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	27000	ug/kg dry	1	09/06/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0108	8015	A05
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
Surrogate: 2-Fluorobiphenyl			61.9 %	36-133		09/05/23	B3H3111	8270	
Surrogate: Nitrobenzene-d5			78.0 %	26-123		09/05/23	B3H3111	8270	
Surrogate: p-Terphenyl-d14			92.1 %	36-142		09/05/23	B3H3111	8270	



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CORRECTED REPORT

Client ID: F-1 3.5-4.5

Lab ID: 2308330-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			95.2 %	27-122		09/08/23	B3I0545	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			90.7 %	35-129		09/08/23	B3I0545	8081/8082	

Inorganics-General Chemistry

TS	% Total Solids	91.8	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	1.5	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	23	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	10	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	5.7	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	2.4	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	22	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: F-1 14-15

Lab ID: 2308330-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: F-1 14-15

Lab ID: 2308330-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			108 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			123 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			107 %	55.4-196		08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: F-1 14-15

Lab ID: 2308330-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/06/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/06/23	B3I0108	8015	A05
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/05/23	B3H3111	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/05/23	B3H3111	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/05/23	B3H3111	8270	
Surrogate: 2-Fluorobiphenyl			63.8 %	36-133		09/05/23	B3H3111	8270	
Surrogate: Nitrobenzene-d5			79.1 %	26-123		09/05/23	B3H3111	8270	
Surrogate: p-Terphenyl-d14			94.0 %	36-142		09/05/23	B3H3111	8270	



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CORRECTED REPORT

Client ID: F-1 14-15

Lab ID: 2308330-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	

Surrogate: Decachlorobiphenyl

90.3 %

27-122

09/08/23

B3I0545

8081/8082

Surrogate: Tetrachloro-m-xylene

85.5 %

35-129

09/08/23

B3I0545

8081/8082

Inorganics-General Chemistry

TS	% Total Solids	90.2	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	2.2	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	29	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	12	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	7.7	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	3.2	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	19	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: H-7 0.5-1.5

Lab ID: 2308330-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	



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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: H-7 0.5-1.5

Lab ID: 2308330-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3600	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiary Amyl methylether	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	360	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	72	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			109 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			118 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			106 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: H-7 0.5-1.5

Lab ID: 2308330-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/07/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/07/23	B3I0108	8015	A05
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3I0416	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	09/06/23	B3I0416	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
Surrogate: 2-Fluorobiphenyl			70.3 %	36-133		09/06/23	B3I0416	8270	
Surrogate: Nitrobenzene-d5			60.0 %	26-123		09/06/23	B3I0416	8270	
Surrogate: p-Terphenyl-d14			90.4 %	36-142		09/06/23	B3I0416	8270	



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CORRECTED REPORT

Client ID: H-7 0.5-1.5

Lab ID: 2308330-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	

Surrogate: Decachlorobiphenyl

105 %

27-122

09/08/23

B3I0545

8081/8082

Surrogate: Tetrachloro-m-xylene

99.2 %

35-129

09/08/23

B3I0545

8081/8082

Inorganics-General Chemistry

TS	% Total Solids	88.8	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	2.0	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	27	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	13	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	7.7	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	3.4	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	17	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



MICHIGAN DEPARTMENT OF
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P.O. Box 30270
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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: H-7 4-5

Lab ID: 2308330-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: H-7 4-5

Lab ID: 2308330-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			102 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			112 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			98.6 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: H-7 4-5

Lab ID: 2308330-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-DRO/ORO

DRO	Diesel Range Org(C10-C20)	ND	28000	ug/kg dry	1	09/07/23	B3I0108	8015	
ORO	Oil Range Organics (C20-C34)	ND	110000	ug/kg dry	1	09/07/23	B3I0108	8015	A05

Organics-Semivolatiles

91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/06/23	B3I0416	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/06/23	B3I0416	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/06/23	B3I0416	8270	

Surrogate: 2-Fluorobiphenyl	72.6 %	36-133	09/06/23	B3I0416	8270
Surrogate: Nitrobenzene-d5	61.9 %	26-123	09/06/23	B3I0416	8270
Surrogate: p-Terphenyl-d14	90.9 %	36-142	09/06/23	B3I0416	8270



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CORRECTED REPORT

Client ID: H-7 4-5

Lab ID: 2308330-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier

Organics-PCBs as Aroclors

12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	09/08/23	B3I0545	8081/8082	

Surrogate: Decachlorobiphenyl

106 %

27-122

09/08/23

B3I0545

8081/8082

Surrogate: Tetrachloro-m-xylene

99.2 %

35-129

09/08/23

B3I0545

8081/8082

Inorganics-General Chemistry

TS	% Total Solids	90.7	0.1	%	1	08/29/23	B3H2939	2540 G	

Inorganics-Metals

7440-38-2	Arsenic	1.6	0.5	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-39-3	Barium	24	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-47-3	Chromium	11	2.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7440-50-8	Copper	6.3	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-92-1	Lead	2.9	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/07/23	B3I0527	245.5	
7782-49-2	Selenium	0.2	0.2	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/11/23	B3H2943	200.8	
7440-66-6	Zinc	16	1.0	mg/kg dry	10	09/08/23	B3H2943	200.8	



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CORRECTED REPORT

Client ID: G1 4-5'

Lab ID: 2308330-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G1 4-5'

Lab ID: 2308330-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiary Amyl methylether	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			113 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			131 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			111 %	55.4-196		08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G1 4-5'

Lab ID: 2308330-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/08/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			76.0 %	36-133		09/08/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			64.6 %	26-123		09/08/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			89.7 %	36-142		09/08/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	90.4	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G1 14-15'

Lab ID: 2308330-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G1 14-15'

Lab ID: 2308330-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiary Amyl methylether	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			110 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			123 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			110 %	55.4-196		08/29/23	B3H2945	8260	



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CORRECTED REPORT

Client ID: G1 14-15'

Lab ID: 2308330-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/09/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl		74.2 %	36-133			09/09/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5		62.4 %	26-123			09/09/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14		86.7 %	36-142			09/09/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	90.7	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G2 .5-1.5'

Lab ID: 2308330-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
71-55-6	1,1,1-Trichloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
79-00-5	1,1,2-Trichloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-34-3	1,1-Dichloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-35-4	1,1-Dichloroethylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
96-18-4	1,2,3-Trichloropropane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
106-93-4	1,2-Dibromoethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
95-50-1	1,2-Dichlorobenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
107-06-2	1,2-Dichloroethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
78-87-5	1,2-Dichloropropane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
541-73-1	1,3-Dichlorobenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
106-46-7	1,4-Dichlorobenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	A05, A10
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	08/29/23	B3H2945	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
71-43-2	Benzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
74-97-5	Bromochloromethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-27-4	Bromodichloromethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-25-2	Bromoform	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	08/29/23	B3H2945	8260	
75-15-0	Carbon disulfide	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
56-23-5	Carbon tetrachloride	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
108-90-7	Chlorobenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
67-66-3	Chloroform	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
124-48-1	Dibromochloromethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G2 .5-1.5'

Lab ID: 2308330-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	08/29/23	B3H2945	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
100-41-4	Ethylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
110-54-3	Hexane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
98-82-8	Isopropylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	08/29/23	B3H2945	8260	
96-37-7	Methylcyclopentane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	08/29/23	B3H2945	8260	
1634-04-4	Methyltertiarybutylether	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
104-51-8	n-Butylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
142-82-5	n-Heptane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
103-65-1	n-Propylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
95-47-6	o-Xylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
135-98-8	sec-Butylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
100-42-5	Styrene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
98-06-6	tert-Butylbenzene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	08/29/23	B3H2945	8260	
994-05-8	tertiary Amyl methylether	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
127-18-4	Tetrachloroethylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	08/29/23	B3H2945	8260	
108-88-3	Toluene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
79-01-6	Trichloroethylene	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-69-4	Trichlorofluoromethane	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
75-01-4	Vinyl chloride	ND	65	ug/kg dry	50	08/29/23	B3H2945	8260	
Surrogate: Bromofluorobenzene			140 %	40.3-194		08/29/23	B3H2945	8260	
Surrogate: Dibromofluoromethane			166 %	52.1-217		08/29/23	B3H2945	8260	
Surrogate: Toluene-d8			138 %	55.4-196		08/29/23	B3H2945	8260	



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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G2 .5-1.5'

Lab ID: 2308330-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	1	09/09/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
120-12-7	Anthracene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
218-01-9	Chrysene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
86-73-7	Fluorene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	09/09/23	B3I0417	8270	
91-20-3	Naphthalene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
129-00-0	Pyrene	ND	120	ug/kg dry	1	09/09/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			67.7 %	36-133		09/09/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			58.3 %	26-123		09/09/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			83.0 %	36-142		09/09/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	86.7	0.1	%	1	08/29/23	B3H2939	2540 G	



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P.O. Box 30270
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CORRECTED REPORT

Client ID: G2 9-10'

Lab ID: 2308330-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	



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CORRECTED REPORT

Client ID: G2 9-10'

Lab ID: 2308330-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			92.5 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			103 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			104 %	55.4-196		08/29/23	B3H2931	8260	



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CORRECTED REPORT

Client ID: G2 9-10'

Lab ID: 2308330-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/09/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			70.0 %		36-133	09/09/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			59.3 %		26-123	09/09/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			87.3 %		36-142	09/09/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	90.5	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G3 1.5-2.5'

Lab ID: 2308330-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	



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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G3 1.5-2.5'

Lab ID: 2308330-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			116 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			136 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			126 %	55.4-196		08/29/23	B3H2931	8260	



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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G3 1.5-2.5'

Lab ID: 2308330-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/09/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl		64.4 %	36-133			09/09/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5		56.5 %	26-123			09/09/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14		84.7 %	36-142			09/09/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	90.0	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G3 9.5-10.5'

Lab ID: 2308330-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	



MICHIGAN DEPARTMENT OF
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P.O. Box 30270
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CORRECTED REPORT

Client ID: G3 9.5-10.5'

Lab ID: 2308330-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			93.4 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			112 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			102 %	55.4-196		08/29/23	B3H2931	8260	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G3 9.5-10.5'

Lab ID: 2308330-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	1	09/09/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/09/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/09/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			70.1 %	36-133		09/09/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			59.4 %	26-123		09/09/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			85.0 %	36-142		09/09/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	91.3	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G4 1.5-2.5'

Lab ID: 2308330-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	



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CORRECTED REPORT

Client ID: G4 1.5-2.5'

Lab ID: 2308330-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			115 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			137 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			125 %	55.4-196		08/29/23	B3H2931	8260	



MICHIGAN DEPARTMENT OF
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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G4 1.5-2.5'

Lab ID: 2308330-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/12/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	230	ug/kg dry	1	09/12/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			70.7 %	36-133		09/12/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			61.4 %	26-123		09/12/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			81.7 %	36-142		09/12/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	88.7	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

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CORRECTED REPORT

Client ID: G4 10-11'

Lab ID: 2308330-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	



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CORRECTED REPORT

Client ID: G4 10-11'

Lab ID: 2308330-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			96.1 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			113 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			105 %	55.4-196		08/29/23	B3H2931	8260	



MICHIGAN DEPARTMENT OF
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MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G4 10-11'

Lab ID: 2308330-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/12/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl		76.4 %	36-133			09/12/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5		65.1 %	26-123			09/12/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14		89.8 %	36-142			09/12/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	89.9	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G5 3.5-4.5'

Lab ID: 2308330-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	



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FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G5 3.5-4.5'

Lab ID: 2308330-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			96.2 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			112 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			99.9 %	55.4-196		08/29/23	B3H2931	8260	



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P.O. Box 30270
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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G5 3.5-4.5'

Lab ID: 2308330-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/12/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/12/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/12/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl		68.6 %	36-133			09/12/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5		59.0 %	26-123			09/12/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14		82.5 %	36-142			09/12/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	90.6	0.1	%	1	08/29/23	B3H2939	2540 G	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

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CORRECTED REPORT

Client ID: G5 10-11'

Lab ID: 2308330-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	A05
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	08/29/23	B3H2931	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	



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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: G5 10-11'

Lab ID: 2308330-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	08/29/23	B3H2931	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
96-37-7	Methylcyclopentane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	08/29/23	B3H2931	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
142-82-5	n-Heptane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	08/29/23	B3H2931	8260	A05
994-05-8	tertiary Amyl methylether	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	08/29/23	B3H2931	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	08/29/23	B3H2931	8260	
Surrogate: Bromofluorobenzene			91.6 %	40.3-194		08/29/23	B3H2931	8260	
Surrogate: Dibromofluoromethane			106 %	52.1-217		08/29/23	B3H2931	8260	
Surrogate: Toluene-d8			99.6 %	55.4-196		08/29/23	B3H2931	8260	



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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: G5 10-11'

Lab ID: 2308330-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	1	09/08/23	B3I0417	8270	
83-32-9	Acenaphthene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
208-96-8	Acenaphthylene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
120-12-7	Anthracene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
56-55-3	Benz[a]anthracene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
50-32-8	Benzo[a]pyrene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
205-99-2	Benzo[b]fluoranthene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
191-24-2	Benzo[g,h,i]perylene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
207-08-9	Benzo[k]fluoranthene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
218-01-9	Chrysene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
53-70-3	Dibenz[a,h]anthracene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
206-44-0	Fluoranthene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
86-73-7	Fluorene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	220	ug/kg dry	1	09/08/23	B3I0417	8270	
91-20-3	Naphthalene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
85-01-8	Phenanthrene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
129-00-0	Pyrene	ND	110	ug/kg dry	1	09/08/23	B3I0417	8270	
Surrogate: 2-Fluorobiphenyl			78.2 %	36-133		09/08/23	B3I0417	8270	
Surrogate: Nitrobenzene-d5			66.0 %	26-123		09/08/23	B3I0417	8270	
Surrogate: p-Terphenyl-d14			90.3 %	36-142		09/08/23	B3I0417	8270	
Inorganics-General Chemistry									
TS	% Total Solids	89.9	0.1	%	1	08/29/23	B3H2939	2540 G	



Analysis Request Sheet

Lab Work Order Number 2308330	Project Name 108 Adams Site/108 Adams Street, Bay City	Matrix WATER
Location ID Bay City, MI	Program CC Email 1 tonica.nack@pmeuv.com	Project TAT Days 30-1
Dept-Division-District EGLE-RRD-Lansing	Activity CC Email 2	Sample Collector Monica Dostert
State Project Manager Janet Michaluk	Funding Source RME	Sample Collector Phone (888) 612-4766
State Project Manager Email michalukj@michigan.gov	Location Code 6J76	Contract Firm PM Environmental
State Project Manager Phone 517-643-0314	Overflow Lab Choice 1 ROIS-1	Contract Firm Primary Contact T. Hack
	Overflow Lab Choice 2	Primary Contact Phone 248-414-1463

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	C-6 14-15	8/20/23	1325	2	
2	F-3 0.5-1.5		1410	3	sample for asbestos
3	F-3 4.5-5.5		1415	3	
4	F-2 3.5-4.5		1500	3	
5	F-2 10.5-11.5		1500	3	
6	F-3 13.5-14.5		1545	3	
7	F-3 14-15		1550	3	
8	H-7 0.5-1.5	8/24/23	845	3	
9	H-7 4-5		850	3	
10	H-8 0.5-1.5		915	3	Added time on COC

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids Volatiles - Full List BTEX/MTBE/TMB only Chlorinated only GRO 1,4 Dioxane METH - Methane, Ethane, Ethene Methane, Ethane, Ethene ON - Pesticides, PCBs Pesticides & PCBs Pesticides only PCBs only Toxaphene Chlordane BNA - Base Neutral Acids BNAs Benzidines PNAs only BNs only Acids only Organic Specialty Requests Library search - Volatiles Library search - SemiVols Finger Print DRO / ORO METALS CHEMISTRY PACKAGES OpMemo2 - Total OpMemo2 - Dissolved (As, Ba, Be, Cd, Cr, Cu, Co, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, V, Zn) Michigan10 - Total Michigan10 - Dissolved (As, Ba, Cd, Cr, Cu, Pb, Hg, Se, Ag, Zn)	Diss - Silver - Ag Diss - Aluminum - Al Diss - Arsenic - As Diss - Boron - B Diss - Barium - Ba Diss - Beryllium - Be Diss - Cadmium - Cd Diss - Cobalt - Co Diss - Chromium - Cr Diss - Copper - Cu Diss - Iron - Fe Diss - Mercury - Hg Diss - Lithium - Li Diss - Manganese - Mn Diss - Molybdenum - Mo Diss - Nickel - Ni Diss - Lead - Pb Diss - Antimony - Sb Diss - Selenium - Se Diss - Strontium - Sr Diss - Titanium - Ti Diss - Thallium - Tl Diss - Uranium - U Diss - Vanadium - V Diss - Zinc - Zn Diss - Calcium - Ca Diss - Potassium - K Diss - Magnesium - Mg Diss - Sodium - Na Diss - Hardness - Ca, Mg MD - Metals Dissolved Lab Filtration	Silver - Ag Aluminum - Al Arsenic - As Boron - B Barium - Ba Beryllium - Be Cadmium - Cd Cobalt - Co Chromium - Cr Copper - Cu Iron - Fe Mercury - Hg Lithium - Li Manganese - Mn Molybdenum - Mo Nickel - Ni Lead - Pb Antimony - Sb Selenium - Se Strontium - Sr Titanium - Ti Thallium - Tl Uranium - U Vanadium - V Zinc - Zn Calcium - Ca Potassium - K Magnesium - Mg Sodium - Na Hardness - Ca, Mg LHG - Low Level Mercury Mercury Low Level - Hg	GB Total Cyanide - CN GCN Available Cyanide - CN (Amenable / Weak Acid Dissociable) CA Chlorophyll GN Ortho Phosphate - OP GN Diss Ortho Phosphate - *FF1 GN Nitrite - NO ₂ GN Nitrate - NO ₃ (Calc.) GN Suspended Solids - SS GN Dissolved Solids - TDS MN Diss Solids - TDS (Calc.) GN Turbidity MN Total Alkalinity MN Bicarb/Carb Alkalinity (Includes Total Alkalinity) MN Chloride - Cl MN Fluoride - F MN Sulfate - SO ₄ MN Diss Chromium 6 - *FF MN Conductivity MN pH GA Chem Oxyg Dem - COD GA Diss Org Carbon - DOC *FF1 GN Diss Org Carbon - DOC (LF, 1 (Lab - Filtered & Preserved) GA Total Org Carbon - TOC GA Ammonia - NH ₃ GA Nitrate+Nitrite - NO ₃ +NO ₂ GA Kjeldahl Nitrogen - KN GA Total Phosphorus - TP

Chain of Custody	Relinquished by Print Name & Org. Signature:	Received By Print Name & Org. Signature:	Date / Time
	Monica Dostert / PME Signature: Monica Dostert	PM Storage Signature: Melissa Smith	8/20/23
	Dylan Rich Signature: Dylan Rich		8/25/23
			8/25/23 1140

Analysis Request Sheet

Lab Work Order Number

Project Name

Matrix

2308330

108 Adams Site/108 Adams Street, Bay City

SOIL/SEDIMENT

Location ID 01-147610-2002 Bay City	Program CC Email 1 Tonia.Hack@pme.nv.com	Project TAT Days	Sample Collector Montica Doster
Dept-Division-District EGLE-RRD-Lansing	Activity CC Email 2	Project Due Date	Sample Collector Phone (586) 612-4764
State Project Manager Janet Michaluk	Funding Source RME	Accept Analysis hold time codes	Contract Firm PM Environmental
State Project Manager Email michalukj@michigan.gov	Location Code 6J76	Overflow Lab Choice 1	Contract Firm Primary Contact T. Hack
State Project Manager Phone 517-643-0314	SUB Location Code	Overflow Lab Choice 2	Primary Contact Phone 248-414-1463

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	10 G1 4-5'	8/24/23	1025	2	
2	11 G1 14-15'		1030	2	
3	12 G2 5-1.5'		1100	2	
4	13 G2 9-10'		1105	2	
5	14 G3 1.5-2.5'		1135	2	
6	15 G3 9.5-10.5'		1140	2	
7	16 G4 1.5-2.5'		1245	2	
8	17 G4 10-11'		1250	2	
9	18 G5 3.5-4.5'		1210	2	
10	19 G5 10-11'		1215	2	

ORGANIC CHEMISTRY	METALS CHEMISTRY PACKAGES	MS - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids Volatiles - Full List 1 2 3 4 5 6 7 8 9 10 BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10 OS - Pesticides, PCBs Pesticides & PCBs 1 2 3 4 5 6 7 8 9 10 Pesticides only 1 2 3 4 5 6 7 8 9 10 PCBs only 1 2 3 4 5 6 7 8 9 10 Toxaphene 1 2 3 4 5 6 7 8 9 10 BNA - Base Neutral Acids BNAs 1 2 3 4 5 6 7 8 9 10 PNAs only 1 2 3 4 5 6 7 8 9 10 BNs only 1 2 3 4 5 6 7 8 9 10 Organic Specialty Requests Library search - Volatiles 1 2 3 4 5 6 7 8 9 10 Library search - SemiVols 1 2 3 4 5 6 7 8 9 10 Finger Print 1 2 3 4 5 6 7 8 9 10 DRQ / ORO 1 2 3 4 5 6 7 8 9 10	OpMemo2 - Total 1 2 3 4 5 6 7 8 9 10 (Sb,As,Ba,Bi,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,V,Zn) Michigan10 - Total 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	Silver - Ag 1 2 3 4 5 6 7 8 9 10 Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Arsenic - As 1 2 3 4 5 6 7 8 9 10 Barium - Ba 1 2 3 4 5 6 7 8 9 10 Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Copper - Cu 1 2 3 4 5 6 7 8 9 10 Iron - Fe 1 2 3 4 5 6 7 8 9 10 Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Lithium - Li 1 2 3 4 5 6 7 8 9 10 Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Lead - Pb 1 2 3 4 5 6 7 8 9 10 Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Selenium - Se 1 2 3 4 5 6 7 8 9 10 Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Uranium - U 1 2 3 4 5 6 7 8 9 10 Vanadium - V 1 2 3 4 5 6 7 8 9 10 Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Potassium - K 1 2 3 4 5 6 7 8 9 10 Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Sodium - Na 1 2 3 4 5 6 7 8 9 10	GS - General Chemistry Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. <i>Montica Doster / PME</i>	<i>PM Storage</i>	<i>8/24/23</i>
	Signature: <i>[Signature]</i>		
	Print Name & Org. <i>Dylan Kersch</i>	<i>Melissa Smith</i>	<i>8/25/23</i>
	Signature: <i>[Signature]</i>	<i>8/25/23 1344</i>	
	Print Name & Org.		
	Signature:		

2017 MSHDA PHASE II LETTER OF RELIANCE

October 26, 2017

Dan Lince
Environmental Manager
Rental Development Division
Michigan State Housing Development Authority 735 East Michigan Avenue
Lansing, Michigan 48912

RE: Phase II ESA at 111 North Madison Avenue, Bay City, Michigan
For: Columbus Street Development, LLC, (11146s2-3-20), dated, October 25, 2017

Dear Mr. Lince:

Please find enclosed the Phase II Environmental Site Assessment for the subject property, dated October 25, 2017, to the Michigan State Housing Development Authority.

It is my understanding that the information contained in the Phase II Environmental Site Assessment will be used by the Authority in considering proposed financing of residential development of the subject property and, furthermore, that the Authority may rely upon the Phase I Environmental Site Assessment as if it were issued to the Authority.

I **represent** that the attached is a true, correct and complete copy of the Phase II Environmental Site Assessment for the above captioned property and that the report represents my professional opinion of the site as of this date and that I meet the definition of an Environmental Professional as defined in Section 312.10 of 40 CFR 312. I also **represent** that the Phase II Environmental Site Assessment was conducted in accordance with ASTM E 1903-11, ASTM Practice E 2600-15, MSHDA's Environmental Review Requirements for 2017, generally accepted industry standards of practice and consisting of a scope of work that would be considered reasonable and sufficient to identify the presence, nature, and extent of the Release as it Impacts the Property

Sincerely,



Sean D. Robinson, CHMM
AKT Peerless Environmental
Great Lake Bay Region



PHASE II ENVIRONMENTAL SITE ASSESSMENT

111 North Madison Avenue, Bay City, Michigan

PREPARED FOR Columbus Development, LLC
315 14th Street
Bay City, Michigan 48708

PROJECT # 11146s2

DATE October 25, 2017

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PHASE II ENVIRONMENTAL SITE ASSESSMENT

111 North Madison Avenue, Bay City, Michigan

AKT Peerless Project No. 11146s2-3-20

1.0 Introduction

AKT Peerless Environmental Services (AKT Peerless) was retained to conduct a Phase II Environmental Site Assessment (ESA) of a property located at 111 North Madison Avenue in Bay City, Michigan (subject property) on behalf of Columbus Development, LLC (Client). This Phase II ESA was conducted in accordance with AKT Peerless' Proposal for a Phase II ESA (Proposal Number PS-21361), dated October 3, 2017, and is based on American Society for Testing and Materials (ASTM) Designation E 1903-11 "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process."

This Phase II ESA scope of work was established to further evaluate the environmental condition of the subject property. As detailed within this Phase II ESA, two distinct subsurface investigations have been completed at the subject property in May 2016 and October 2017. These subsurface investigations were conducted to evaluate the recognized environmental condition (REC) identified in connection with the subject property. As discussed in Section 2.4, a November 2017 Phase I ESA was conducted on a larger portion of property that included two distinct parcels; however, the REC identified was limited to only Parcel A (as defined within the November 2017 Phase I ESA). Parcel B was used solely for residential purposes and no RECs were identified in connection with this property.

AKT Peerless' Phase II ESA report documents the field activities, sampling protocols, and laboratory results conducted as part of this report. AKT Peerless' Phase II ESA was performed for the benefit of the Client, who may rely on the contents and conclusions of this report.

2.0 Background

2.1 Site Description and Physical Setting

The subject property is located at 111 North Madison Avenue in Bay City, Michigan and is comprised of one parcel (Parcel Identification Number 160-028-251-002-00), totaling approximately 1.73 acres. The subject property contains one, two-story vacant commercial building. The existing building is approximately 17,000 square feet. The existing building and infrastructure were constructed in 1953, with renovations in 1992 and 2012. Exterior portions of the subject property consist of asphalt and concrete parking areas, concrete sidewalks, as well as maintained grassy lawns.

The subject property is located in an area of Bay City that is characterized by commercial and residential properties, surface roadways, municipal sanitary sewer and water, as well as electrical and gas utilities. The subject property is currently zoned commercial. The subject property is situated in the northeast ¼ of Section 28 in Bay City (T.14N/R.5E), Bay County, Michigan.

Refer to Figure 1 for a topographic site location map. See Figure 2 for a sample location map depicting sample locations and subject property features.

2.2 Subject Property History and Land Use

The following table summarizes the general development and use of the subject property, as identified by AKT Peerless based on the referenced data sources.

Subject Property Historical Use Summary

Time Period	Improvements	Use	Owner / Occupant	Data Source(s)
1912-1940s	School Store 6 Residential dwellings 7 Out-buildings	Educational Residential Commercial	Eastern High School	Aerial photographs Sanborns
1940s-1953	Vacant Building Store 7 Residential dwellings 2 Out-buildings 3 Automobile garages	Residential Commercial	Unknown	Aerial photographs Sanborns
1954-1978	Subject Building Store 6 Residential dwellings 4 Automobile garages	Residential Commercial	YMCA	Aerial photographs Sanborns City directories Municipal records
1979-2012	Subject Building Parking lot	Commercial	YMCA	Aerial photographs City directories Municipal records
2012-2015	Subject Building Parking lot	Educational	Old Y, LLC / Bay City Academy	Aerial photographs City directories Municipal records Site reconnaissance
2015-Present	Subject Building Parking lot	None	Old Y, LLC / Bay City Housing Commission	Municipal records Site reconnaissance Interviews

2.3 Adjacent Property Land Use

The following table describes the current uses and/or occupants of the adjoining properties, as identified during the Phase I ESA:

Adjoining Property Data

Direction	Address	Current Use / Occupant
North	503 11 th Street	Commercial / Vacant
	509 11 th Street	Residential

Direction	Address	Current Use / Occupant
Northwest	407 11 th Street	Bosco Food Service
Northeast	200 North Madison Avenue	Residential
East	124 North Madison Avenue	Residential
	122 North Madison Avenue	Residential
	116 North Madison Avenue	Residential
	112 North Madison Avenue	Residential
	110 North Madison Avenue	Residential
	603 Columbus Avenue	Jamie's Dairies Inc.
South	102 South Madison Avenue	Rally's Hamburgers
	512 Columbus Avenue	D&D Tri-County Estate Liquidators
Southeast	604 Columbus Avenue	Commercial / Vacant
Southwest	501 Columbus Avenue	Residential
	510 Columbus Avenue	Commercial / Vacant
West	105 North Jefferson Street	Commercial / Vacant
	107 North Jefferson Street	Commercial / Vacant
	109 North Jefferson Street	Residential / Vacant
	108 Adams Street	Chuckie's Bay County Area Flea Market

2.4 Previous Environmental Investigations

AKT Peerless reviewed the following reports previously prepared for the subject property.

2.4.1 Phase I ESA, completed by AKT Peerless, dated April 18, 2016

AKT Peerless completed a Phase I ESA of the subject property on April 18, 2016. At the time of AKT Peerless' assessment, the subject property consisted of the subject building, consistent with current conditions. AKT Peerless identified several RECs, including an unidentified pipe extending on the northern portion of the subject building that may have been associated with a underground storage tank (UST), the historical use of foundry fill as backfill material in the area of the subject property, and the eastern adjoining property's historical use as a filling station with associated USTs.

2.4.2 Geophysical Survey, May 2016

A ground-penetrating radar (GPR) survey was conducted in May 2016 to identify any anomalies that may be indicative of an abandoned UST or other buried object that may be associated with the unidentified pipe.

The GPR survey did not identify any anomalies indicative of a UST on the subject property. Furthermore, the soil borings completed in near proximity to this unidentified pipe (B-6, B-12, and B-13) did not reveal any evidence of the past or current presence of USTs. Additionally, no evidence of petroleum contamination was identified at the subject property.

2.4.3 Phase II ESA, completed by AKT Peerless, dated May 26, 2016

AKT Peerless conducted a Phase II subsurface investigation to evaluate the RECs identified in the 2016 Phase I ESA. During the May 2016 subsurface investigation, six soil borings were advanced on the subject property with the collection of six soil samples for the analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), and select metals. Groundwater was not encountered. According to the analytical results, chromium (total), mercury (total), and selenium were detected at concentrations exceeding MDEQ Generic Residential Cleanup Criteria (RCC). Various concentrations in soil were detected above the groundwater surface water interface protection (GSIP) criteria and drinking water protection (DWP) criteria. Based on laboratory analytical results, the subject property meets the definition of a *facility*¹, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

As described in Section 3.0, the activities of both distinct subsurface investigations are presented within this Phase II ESA.

2.4.4 Phase I ESA, completed by AKT Peerless, dated November 9, 2017

AKT Peerless completed a Phase I ESA of the subject property and southwestern adjoining property, dated November 9, 2017, in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E 1527-13. At the time of AKT Peerless' site reconnaissance, the subject property was developed with the existing two-story vacant commercial building. The 2017 Phase I ESA has revealed no evidence of known RECs in connection with the subject property, except for the following:

REC 1 - A subsurface investigation in May 2016 identified chromium, mercury, and selenium in soils on Parcel A of the subject property. However, the presence of metals in soil at the subject property is likely the result of the import of non-native fill material. The presence of metals at low concentrations exceeding residential drinking water protection and groundwater surface water interface protection criteria do not pose a threat to humans or the environment for the following reasons: (1) the subject property obtains water for a municipal source and groundwater is not developed for any purpose at the subject property, (2) the subject property does not contain nor is adjacent to a surface water, and (3) groundwater was not observed at the subject property during subsurface investigation activities.

¹ "Facility" means any area, place, or property where a hazardous substance in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located.

3.0 Phase II Environmental Site Assessment Activities

AKT Peerless has conducted two distinct Phase II Subsurface Investigations at the subject property. The following sections summarize the site assessment activities, conducted by AKT Peerless during the May 2016 and October 2017 subsurface investigations.

3.1 Scope of Assessment

On May 13, 2016, AKT Peerless conducted a GPR survey and subsurface investigation of the subject property that included: (1) the advancement of 6 soil borings, and (2) the collection of 6 soil samples (one discrete soil sample from each boring at a maximum depth of 16 below ground surface [bgs]). The following samples were submitted for laboratory analyses:

- Six soil samples for VOCs
- Four soil samples for PNAs
- Three soil samples for “Michigan 10” Metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, zinc)

The following table summarizes the environmental concerns, the site investigation activities performed, and the laboratory parameters associated with the May 13, 2016 subsurface investigation.

Summary of Investigation Activity

Environmental Concern	Investigation Activity	Analytical Parameters
Unidentified pipe on northern portion of the subject property exterior	6 Soil Samples and GPR Survey	VOCs, PNAs, “Michigan 10” Metals
Potential presence of foundry fill		
Former filling station on the eastern adjoining property		

To further evaluate the environmental condition of the subject property, AKT Peerless conducted a subsurface investigation in October 2017 to further evaluate the environmental condition of the subject property. The scope of work was established based on the findings of the previous environmental assessments, in light of the proposed redevelopment of the subject property. The October 2017 subsurface investigation included: (1) the advancement of seven soil borings and (2) the collection of seven soil samples (one discrete soil sample from each boring). The following samples were submitted for laboratory analyses:

- 7 soil samples for VOCs, PNAs, and Michigan 10 Metals

The following table summarizes each REC, the site investigation activities performed, and the laboratory parameters used to address the REC.

Summary of Investigation Activity

Environmental Concern	Investigation Activity	Analytical Parameters
Part 201 contaminants exceeding the MDEQ RCC	7 Soil	VOCs, PNAs, "Michigan 10" Metals

3.1.1 Soil Evaluation

On October 12, 2017, AKT Peerless advanced seven additional soil borings at the subject property. AKT Peerless used hydraulic drive/direct-push (Geoprobe®) sampling techniques and followed the guidance outlined in ASTM publication E1903-11 "Standard Practice of Environmental Site Assessments: Phase II Environmental Site Assessment Process." AKT Peerless collected continuous soil samples from the soil borings in four-foot intervals to the maximum depth explored of 12 feet below ground surface (bgs). AKT Peerless personnel inspected, field-screened, and logged the samples collected at each soil boring location.

Refer to Figure 2 for a sample location map with soil boring locations. Boring logs are provided in Appendix A.

3.1.2 Groundwater Evaluation

AKT Peerless did not encounter groundwater in any of the soil borings conducted at the subject property during the May 2016 and October 2017 subsurface investigations. As presented in Section 3.4.2, the subsurface soil consists of a homogenous clay layer at a depth of approximately 1-foot bgs.

3.2 Quality Assurance/Quality Control

To ensure the accuracy of data collected during on site activities, AKT Peerless implemented proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to: (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.2.1 Decontamination of Equipment

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

3.2.2 Calibration of Field Equipment

All field instruments were calibrated prior to first use on-site to ensure accuracy. Field instruments utilized during investigation activities at this subject property were a photoionization detector (PID),

During AKT Peerless' Phase II ESA, a PID was used to screen all soil samples. The PID was maintained in a calibrated condition using 100 ppm isobutylene span gas prior to subsurface investigations.

A sample scale was utilized during soil sampling activities to weigh approximately 10 grams of soil for the methanol preserved samples (i.e., soil samples designated for VOC analysis). The scale was maintained in a calibrated condition using calibration weights in accordance with the manufacturer's specifications.

3.2.3 Documentation of Activities

During AKT Peerless' Phase II ESA activities, subject property conditions (i.e. soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as: (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM publication D-2488 "Unified Soil Classification System." All soil samples were delivered to Quantum Laboratories, Inc. under chain-of-custody documentation. See Appendix A for AKT Peerless' soil boring logs. See Figure 3 for site map with soil boring locations.

3.2.4 Sample Preservation Techniques

AKT Peerless collected soil samples according to USEPA Publication SW-846, "Test Methods for Evaluating Solid Waste." Soil samples were collected in laboratory-supplied containers, stored on ice or at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for volatile analyses were field preserved with methanol in accordance with U.S. EPA Method 5035. Soil samples collected for PNAs and Michigan 10 Metals analyses were stored in unpreserved, 4-ounce wide-mouth jars.

3.3 Laboratory Analysis and Methods

On May 13, 2016, AKT Peerless submitted six soil samples for laboratory analyses and on October 12, 2017, AKT Peerless submitted seven additional soil samples for laboratory analyses. The following table summarizes the location, depth, matrix, and laboratory analysis for each sample.

Sample Collection Summary

Sample Identification (year)	Sample Matrix	Soil Sample Interval (feet, bgs)	Laboratory Analytical Parameter(s)
B-1 (2016)	Soil	3.5-4.5'	VOCs, PNAs, "Michigan 10" Metals
B-2 (2016)	Soil	0.5-1.5'	VOCs
B-3 (2016)	Soil	2.0-3.0'	VOCs, PNAs
B-4 (2016)	Soil	2.5-3.5'	VOCs, PNAs, "Michigan 10" Metals
B-5 (2016)	Soil	0.5-1.0'	VOCs, PNAs, "Michigan 10" Metals
B-6 (2016)	Soil	7.0-8.0'	VOCs
B-7 (2017)	Soil	5.5-6'	VOCs, PNAs, "Michigan 10" Metals
B-8 (2017)	Soil	5.0-6.0'	VOCs, PNAs, "Michigan 10" Metals

Sample Identification (year)	Sample Matrix	Soil Sample Interval (feet, bgs)	Laboratory Analytical Parameter(s)
B-9 (2017)	Soil	1.5-2.5'	VOCs, PNAs, "Michigan 10" Metals
B-10 (2017)	Soil	0.5-1.5'	VOCs, PNAs, "Michigan 10" Metals
B-11 (2017)	Soil	1.0-2.0'	VOCs, PNAs, "Michigan 10" Metals
B-12 (2017)	Soil	2.0-3.0'	VOCs, PNAs, "Michigan 10" Metals
B-13 (2017)	Soil	2.0-3.0'	VOCs, PNAs, "Michigan 10" Metals

The laboratory analyzed the samples for: (1) VOCs in accordance with USEPA Method 8260B; (2) PNAs in accordance with USEPA Method 8270C; (3) Michigan 10 Metals: Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Selenium, Silver, and Zinc in accordance with USEPA Method 7010, as well as Mercury in accordance with USEPA Method 7471B.

3.4 Subsurface Conditions

The following sections summarize the physical soil and groundwater conditions at the subject property.

3.4.1 Soil and Groundwater Conditions based on Published Material

According to the United States Department of Agriculture, "Soil Survey of Bay County, Michigan," the soil in the area is classified as the Tappan association. The Tappan association consists of nearly level, poorly drained soils that formed in loamy material; on till plains modified by lake water.

According to the Michigan Geological Survey Division's publication, "*Quaternary Geology of Southern Michigan*," the soil in the area is lacustrine sand and gravel. This soil is described as pale brown to pale reddish brown, fine to medium sand, commonly including beds or lenses of small gravel. These soils occur chiefly as former beach and near offshore littoral deposits of glacial Great Lakes and may include intercalated lacustrine clay. Soil thickness ranges from 3 to 100 feet.

The Saginaw River, with a northerly flow, is located approximately 2,150-feet west of the subject property. Based on this information, AKT Peerless infers that groundwater in the vicinity of the subject property flows in a westerly direction, with potential influence from the Saginaw River. However, local manmade structures (e.g., buildings, roads, sewer systems, and utility service lines) may influence both surface water and ground water flow. AKT Peerless was unable to precisely document the groundwater flow direction beneath the subject property. To determine the site-specific groundwater flow direction, subsurface information would be necessary.

3.4.2 Soil and Groundwater Conditions based on Field Observations

During the 2016 and 2017 drilling activities, AKT Peerless encountered the following soil types:

- SAND from below asphalt to approximately 1 to 3 feet bgs. This sand was described as brown to black, medium grained, with trace gravel. In select borings, the sand contained traces of brick and other non-native fill material.
- CLAY from 1 to 16 feet bgs, the maximum depth explored. This clay was stiff, brown in color, dry, and exhibited confining characteristics.

AKT Peerless did not encounter groundwater in any of the soil borings.

Refer to Figure 2 for a sample location map with soil boring locations. Refer to Appendix A for AKT Peerless' soil boring logs.

3.5 Laboratory Analytical Results

AKT Peerless collected soil samples for the purpose of determining if the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended. Analytical results were compared with MDEQ Generic RCC provided in MDEQ Remediation and Redevelopment Division's Operational Memorandum No. 1, Table 1.

3.5.1 Soil Analytical Results

During the May 2016 and October 2017 sampling events, AKT Peerless submitted a total of 13 soil samples for laboratory analysis of VOCs, PNAs, and "Michigan 10" Metals. The results of the laboratory analyses of the soil samples are summarized in the table below:

Summary of Soil Analytical Results

Parameter	Chemical Abstract Service (CAS) Number	Sample Identification with Criteria Exceedance (depth, bgs)	MDEQ Criteria Exceeded/Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Chromium, Total	7440-47-3	B-4 (2.5'-3.5') B-5 (0.5'-1.0') B-7 (5.5'-6.0')	GSIP / 3,300 DWP / 30,000	60,300 / B-4
Mercury, Total	Varies	B-1 (3.5'-4.5') B-11 (1.0'-2.0')	GSIP / 50 *SVIAI / 0.027	261 / B-1
Selenium	7782-49-2	B-1 (3.5'-4.5')	GSIP / 400	516 / B-1
Lead	7439-92-1	B-8 (5.0'-6.0')	DWP / 700E+05 DC / 400E-05	1,760,000/ B-8

Notes:

Sample identification: B-# indicates soil boring and (#-#) indicates sample depth in feet.

Samples B-1 through B-6 completed in 2016 and B-7 through B-13 samples completed in 2017.

µg/kg – micrograms per kilogram

DWP – Drinking Water Protection Criteria

GSIP – Groundwater Surface Water Interface Protection Criteria

DC – Direct Contact Criteria

*SVIAI – MDEQ August 2017, Media Specific Soil Volatilization to Indoor Air Interim Action Screening Levels

Refer to Figure 3 for a site map with soil analytical results exceeding MDEQ criteria. Refer to Table 1 for a summary of soil analytical results and Table 2 for the MDEQ August 2017, Media Specific Soil Volatilization to Indoor Air Interim Action Screening Levels. Refer to Appendix A for the 2016 and 2017 Soil Boring Logs and Appendix B for a complete analytical laboratory report.

4.0 Summary, Conclusions, and Recommendations

The following sections summarize the investigation conducted by AKT Peerless at the subject property.

4.1 Summary of Environmental Concerns

Based on AKT Peerless' November 9, 2017 Phase I ESA, the following environmental concern was identified:

REC 1 - A subsurface investigation in May 2016 identified chromium, mercury, and selenium in soils on Parcel A of the subject property. However, the presence of metals in soil at the subject property is likely the result of the import of non-native fill material. The presence of metals at low concentrations exceeding residential drinking water protection and groundwater surface water interface protection criteria do not pose a threat to humans or the environment for the following reasons: (1) the subject property obtains water for a municipal source and groundwater is not developed for any purpose at the subject property, (2) the subject property does not contain nor is adjacent to a surface water, and (3) groundwater was not observed at the subject property during subsurface investigation activities.

4.2 Summary of Subsurface Investigation

On May 13, 2016, and October 12, 2017, AKT Peerless conducted subsurface investigation activities at the subject property to further evaluate the environmental condition of the subject property. AKT Peerless: (1) drilled 13 soil borings, (2) conducted a GPR survey, and (3) collected 13 soil samples for laboratory analyses. AKT Peerless submitted soil samples for laboratory analyses of select parameters, including: VOCs, PNAs, and Michigan 10 Metals.

4.3 Conclusions

AKT Peerless conducted soil sampling in areas most likely to be impacted by contaminants based on the past use of the subject property. The results of the 2016 and 2017 investigations indicate the following:

- Chromium (total), mercury (total), and/or selenium were detected in subsurface soils (B-1, B-4, B-5, and B-7) at concentrations exceeding MDEQ Generic RCC. Detected concentrations exceeded the groundwater surface water interface protection criteria and/or residential drinking water protection criteria.
- Mercury was detected, in subsurface soils at the B-11 soil boring location in the northwestern corner of the subject property at concentrations exceeding the MDEQ Part 201 Generic RCC. Concentrations in soil were detected above the groundwater surface water interface criteria. Additionally, mercury was identified in soil at concentrations exceeding the soil volatilization to indoor air interim action screening levels.
- Lead was detected in subsurface soil at B-8 soil boring location, at concentrations exceeding the MDEQ Part 201 Generic RCC. Concentrations in soil were detected above the residential drinking water protection criteria and direct contact criteria.

Based on laboratory analytical results, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

4.4 Recommendations

The presence of metals in soil at the subject property is likely the result of the historical import of non-native fill material. This opinion is based on the known operations and development of the subject property, in conjunction with the results of the subsurface investigations. The identified contamination, is limited to the presence of select metals at concentrations exceeding residential drinking water protection criteria and groundwater surface water interface protection criteria. Additionally, lead was identified in one soil sample collected from B-8 exceeding the residential direct contact criteria:

- The subject property obtains water from a municipal source and groundwater will not be developed for any purpose at the subject property.
- The subject property does not contain, nor is adjacent to a surface water. Furthermore, groundwater was not observed at the subject property during subsurface investigation activities.
- Lead concentration exceeded the residential direct contact criteria in one soil sample collected from B-8 at a depth of 5.0-6.0 feet bgs. Lead was identified at 1 of the 13 soil samples collected from the subject property. Therefore, it does appear that lead contamination is present in a limited area of the subject property.
- Mercury was identified at concentrations exceeding the soil volatilization to indoor air interim action screening levels. This interim screening level was established based on elemental mercury, rather than mercury containing compounds.

As described below, the appropriate activities should be established as part of the redevelopment planning to ensure potential exposure risks are reliably characterized and as appropriately mitigated during and following redevelopment.

As a result of these conditions, AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA) report. Section 26(1)(c) of Part 201 provides certain liability protections to a person, who becomes an owner or operator of a *facility* on, or after June 5, 1995, if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to the MDEQ and subsequent purchaser or transferee.

Furthermore, because the subject property meets the definition of a facility, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the MDEQ and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

Under current conditions, the contaminants do not represent an exposure risk. However, compliance with Due Care should be comprehensively evaluated in-light of the nature and location of the contaminants, as well as in conjunction with the planned redevelopment. Based on this objective, supplemental subsurface investigation activities are recommended to further evaluate the nature and characteristics of the identified contamination.

Lead was identified in one sample location (B-5) at 5.0-6.0 feet deep above the Part 201 Residential direct contact criteria. Mercury was identified in two sample locations (B-1 and B-11) above the MDEQ screening levels for indoor air. Supplemental subsurface investigation is warranted to further evaluate the nature of lead and mercury and support compliance with due care obligations. The following table summarizes the objective and scope of work of the proposed supplemental subsurface investigation.

Proposed Sampling

Objective	Activity	Number of Samples and Matrix	Analytical Parameters
Evaluate the vertical and lateral extent of lead proximal to B-5	8 soil borings at and adjacent to B-5	Up to 16 soil samples (two discrete soil samples per boring).	Lead
Determine if the mercury identified at the subject property is elemental/metallic mercury or oxidized mercury. The volatilization to indoor air screening levels is based on the presence of elemental mercury	4 soil gas samples at and adjacent to B-1 and B-11	4 soil gas samples	Mercury

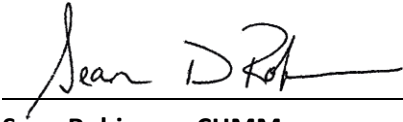
5.0 Limitations

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6.0 Signatures of Environmental Professionals

The following individuals contributed to the completion of this report.

A handwritten signature in black ink, appearing to read "Sean Robinson", written over a horizontal line.

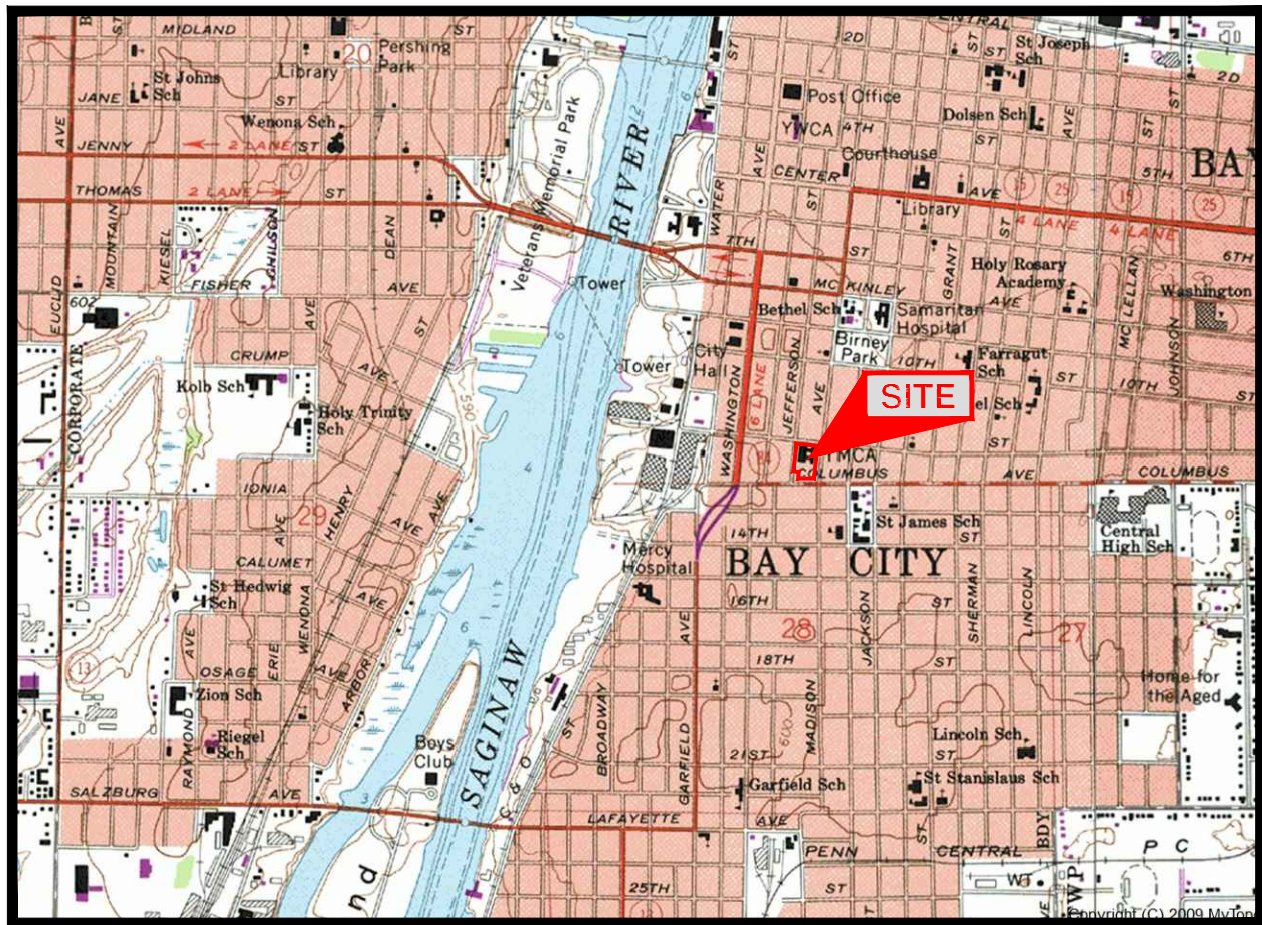
Sean Robinson, CHMM
Project Manager
AKT Peerless
Great Lakes Bay Region
Phone: 989.754.9896
Fax: 989.754.3804

A handwritten signature in black ink, appearing to read "John Warner", written over a horizontal line.

John Warner
Environmental Consultant
AKT Peerless
Great Lakes Bay Region
Phone: 989.754.9896
Fax: 989.754.3804

FIGURES

BAY CITY QUADRANGLE
MICHIGAN - BAY COUNTY
7.5 MINUTE SERIES (TOPOGRAPHIC)



T.14 N.-R.5 E.

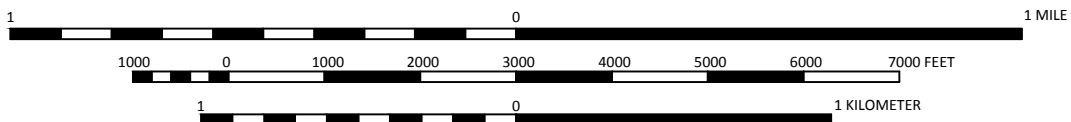
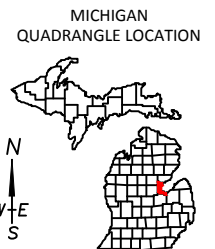


IMAGE TAKEN FROM 1967 U.S.G.S. TOPOGRAPHIC MAP
 PHOTOREVISED 1973



AKTPEERLESS

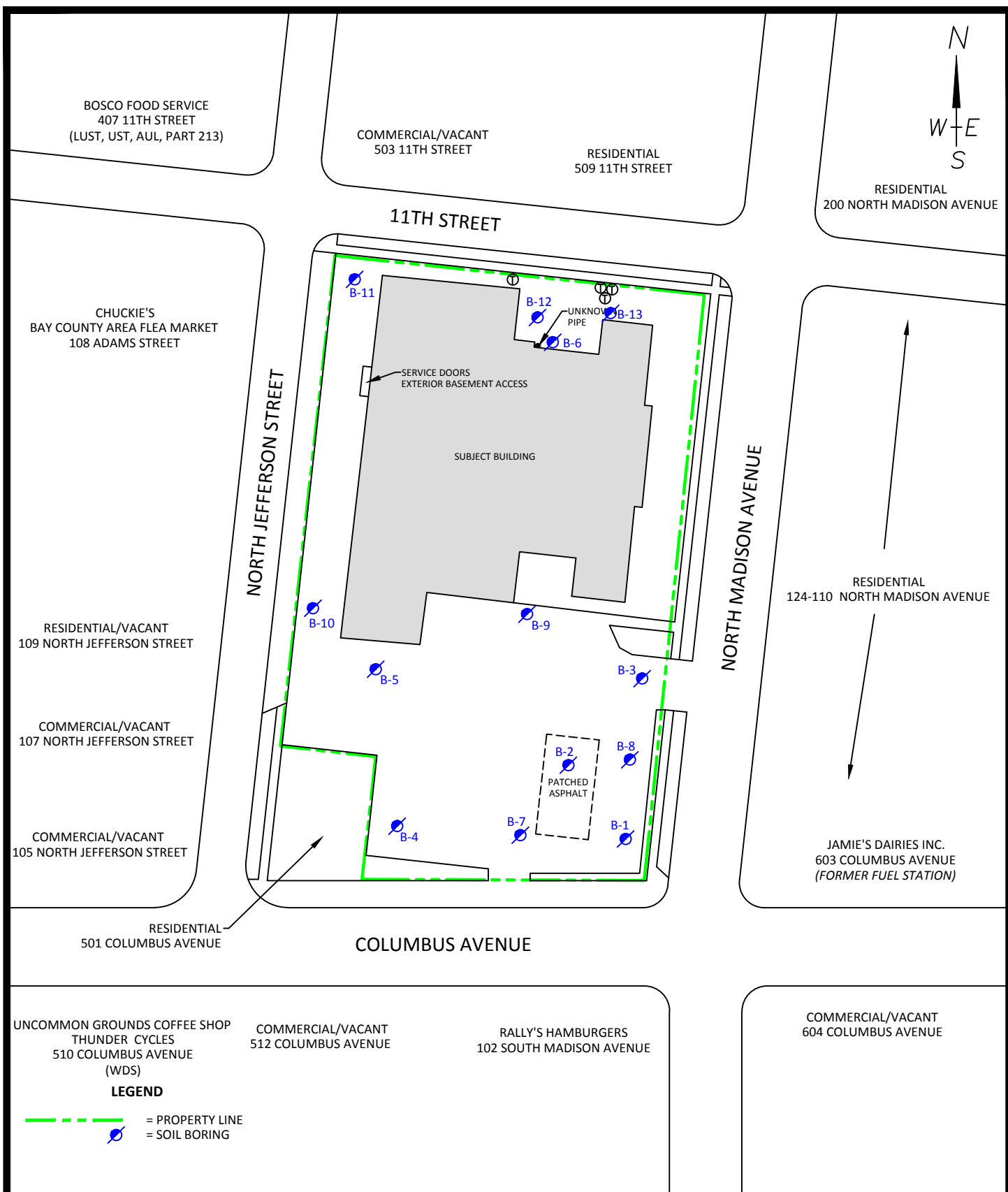
www.aktpeerless.com

TOPOGRAPHIC LOCATION MAP

111 NORTH MADISON AVENUE
 BAY CITY, MICHIGAN
 PROJECT NUMBER : 11146s-3-20

DRAWN BY: OGO
 DATE: 10/17/2017

FIGURE 1



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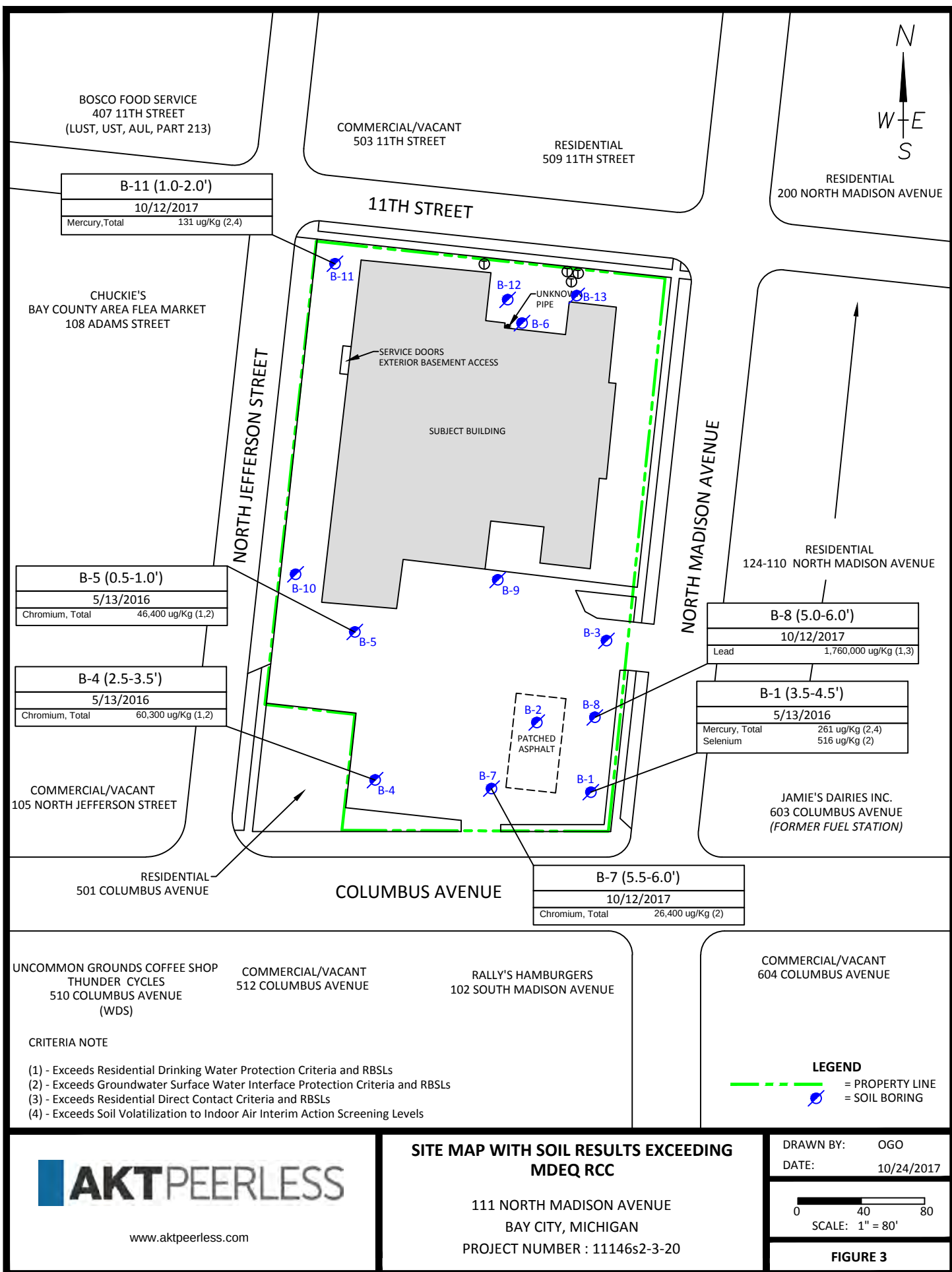
SAMPLE LOCATION MAP

111 NORTH MADISON AVENUE
BAY CITY, MICHIGAN
PROJECT NUMBER : 11146s-3-20

DRAWN BY: OGO
DATE: 10/17/2017

0 40 80
SCALE: 1" = 80'

FIGURE 2



TABLES

Table 1: Summary of Soil Analytical Data
111 North Madison Avenue
Bay City, Michigan
AKT Peerless Project No. 11146s2

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Residential Particulate Soil Inhalation Criteria & RBSLs	Residential Direct Contact Criteria & RBSLs	Maximum Concentration Detected	Sample ID	B-1	B-2	B-3	B-4	B-5	B-6
										Collection Date	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016
										Depth	3.5-4.5'	0.5-1.5'	2.0-3.0'	2.5-3.5'	0.5-1.0'	7.0-8.0'
Metals, ug/Kg																
Arsenic (B)	7440-38-2	5,800	4,600	4,600	NLV	NLV	7.20E+05	7,600	5,700		4,400	NS	NS	2,570	1,640	NS
Barium (B)	7440-39-3	75,000	1.30E+06	(G)	NLV	NLV	3.30E+08	3.70E+07	469,000		93,100	NS	NS	148,000	92,200	NS
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	1.70E+06	5.50E+05	2,270		<200	NS	NS	<200	<200	NS
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	NLV	NLV	2.60E+05	2.50E+06	60,300		8,330	NS	NS	60,300	46,400	NS
Copper (B)	7440-50-8	32,000	5.80E+06	(G)	NLV	NLV	1.30E+08	2.00E+07	23,000		6,220	NS	NS	10,300	23,000	NS
Lead (B)	7439-92-1	21,000	7.00E+05	(G,X)	NLV	NLV	1.00E+08	4.00E+05	1,760,000		2,890	NS	NS	8,130	72,100	NS
Mercury, Total (B, Z)	Varies	130	1,700	50 (M); 1.2	48,000	52,000	2.00E+07	1.60E+05	261		261	NS	NS	<50	<50	NS
Selenium (B)	7782-49-2	410	4,000	400	NLV	NLV	1.30E+08	2.60E+06	516		516	NS	NS	<200	<200	NS
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	6.70E+06	2.50E+06	<100		<100	NS	NS	<100	<100	NS
Zinc (B)	7440-66-6	47,000	2.40E+06	(G)	NLV	NLV	ID	1.70E+08	1,510,000		15,600	NS	NS	15,600	47,200	NS
Semivolatiles, PNAs, ug/Kg																
Acenaphthene	83-32-9	NA	3.00E+05	8,700	1.90E+08	8.10E+07	1.40E+10	4.10E+07	<330		<330	NS	<330	<330	<330	NS
Acenaphthylene	208-96-8	NA	5,900	ID	1.60E+06	2.20E+06	2.30E+09	1.60E+06	<330		<330	NS	<330	<330	<330	NS
Anthracene	120-12-7	NA	41,000	ID	1.0E+9 (D)	1.40E+09	6.70E+10	2.30E+08	<330		<330	NS	<330	<330	<330	NS
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	ID	20,000	467		<330	NS	<330	<330	<330	NS
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	20,000	344		<330	NS	<330	<330	<330	NS
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLV	NLV	ID	2.00E+05	326		<330	NS	<330	<330	<330	NS
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLV	NLV	8.00E+08	2.50E+06	848		<330	NS	<330	<330	<330	NS
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	1.50E+06	2,000	509		<330	NS	<330	<330	<330	NS
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	2.00E+06	523		<330	NS	<330	<330	<330	NS
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLV	NLV	ID	2,000	386		<330	NS	<330	<330	<330	NS
Fluoranthene	206-44-0	NA	7.30E+05	5,500	1.0E+9 (D)	7.40E+08	9.30E+09	4.60E+07	691		<330	NS	<330	<330	<330	NS
Fluorene	86-73-7	NA	3.90E+05	5,300	5.80E+08	1.30E+08	9.30E+09	2.70E+07	<330		<330	NS	<330	<330	<330	NS
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLV	NLV	ID	20,000	479		<330	NS	<330	<330	<330	NS
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.70E+06	1.50E+06	6.70E+08	8.10E+06	<330		<330	NS	<330	<330	<330	NS
Naphthalene	91-20-3	NA	35,000	730	2.50E+05	3.00E+05	2.00E+08	1.60E+07	<330		<330	NS	<330	<330	<330	NS
Phenanthrene	85-01-8	NA	56,000	2,100	2.80E+06	1.60E+05	6.70E+06	1.60E+06	351		<330	NS	<330	<330	<330	NS
Pyrene	129-00-0	NA	4.80E+05	ID	1.0E+9 (D)	6.50E+08	6.70E+09	2.90E+07	554		<330	NS	<330	<330	<330	NS
Volatiles, VOCs, ug/Kg																
Acetone (I)	67-64-1	NA	15,000	34,000	2.9E+8 (C)	1.30E+08	3.90E+11	2.30E+07	<1000		<1000	<1000	<1000	<1000	<1000	<1000
Benzene (I)	71-43-2	NA	100	4,000 (X)	1,600	13,000	3.80E+08	1.80E+05	<50		<50	<50	<50	<50	<50	<50
Bromobenzene (I)	108-86-1	NA	550	NA	3.10E+05	4.50E+05	5.30E+08	5.40E+05	<100		<100	<100	<100	<100	<100	<100
Bromochloromethane	74-97-5	NA	NC	NC	NC	NC	NC	NC	<100		<100	<100	<100	<100	<100	<100
Bromodichloromethane	75-27-4	NA	1,600 (W)	ID	1,200	9,100	8.40E+07	1.10E+05	<100		<100	<100	<100	<100	<100	<100
Bromoform	75-25-2	NA	1,600 (W)	ID	1.50E+05	9.00E+05	2.80E+09	8.20E+05	<100		<100	<100	<100	<100	<100	<100
Bromomethane	74-83-9	NA	200	700	860	11,000	3.30E+08	3.20E+05	<200		<200	<200	<200	<200	<200	<200
2-Butanone (MEK) (I)	78-93-3	NA	2.60E+05	44,000	5.4E+7 (C)	2.90E+07	6.70E+10	1.2E+8 (C, DD)	<750		<750	<750	<750	<750	<750	<750

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Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Residential Particulate Soil Inhalation Criteria & RBSLs	Residential Direct Contact Criteria & RBSLs	Maximum Concentration Detected	Sample ID	B-1	B-2	B-3	B-4	B-5	B-6
										Collection Date	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016
										Depth	3.5-4.5'	0.5-1.5'	2.0-3.0'	2.5-3.5'	0.5-1.0'	7.0-8.0'
n-Butylbenzene	104-51-8	NA	1,600	ID	ID	ID	2.00E+09	2.50E+06	<50		<50	<50	<50	<50	<50	<50
sec-Butylbenzene	135-98-8	NA	1,600	ID	ID	ID	4.00E+08	2.50E+06	<50		<50	<50	<50	<50	<50	<50
tert-Butylbenzene (I)	98-06-6	NA	1,600	ID	ID	ID	6.70E+08	2.50E+06	<50		<50	<50	<50	<50	<50	<50
Carbon disulfide (I,R)	75-15-0	NA	16,000	ID	76,000	1.30E+06	4.70E+10	7.2E+6 (C, DD)	<250		<250	<250	<250	<250	<250	<250
Carbon tetrachloride	56-23-5	NA	100	900 (X)	190	3,500	1.30E+08	96,000	<50		<50	<50	<50	<50	<50	<50
Chlorobenzene (I)	108-90-7	NA	2,000	500	1.20E+05	7.70E+05	4.70E+09	4.3E+6 (C)	<50		<50	<50	<50	<50	<50	<50
Chloroethane	75-00-3	NA	8,600	22,000 (X)	2.9E+6 (C)	3.00E+07	6.70E+11	2.6E+6 (C)	<250		<250	<250	<250	<250	<250	<250
Chloroform	67-66-3	NA	1,600 (W)	7,000	7,200	45,000	1.30E+09	1.20E+06	<50		<50	<50	<50	<50	<50	<50
Chloromethane (I)	74-87-3	NA	5,200	ID	2,300	40,000	4.90E+09	1.6E+6 (C)	<250		<250	<250	<250	<250	<250	<250
2-Chlorotoluene (I)	95-49-8	NA	3,300	ID	2.70E+05	1.20E+06	4.70E+09	4.5E+6 (C)	<50		<50	<50	<50	<50	<50	<50
4-Chlorotoluene (I)	106-43-4	NA	NC	NC	NC	NC	NC	NC	<50		<50	<50	<50	<50	<50	<50
Dibromochloromethane	124-48-1	NA	1,600 (W)	ID	3,900	24,000	1.30E+08	1.10E+05	<100		<100	<100	<100	<100	<100	<100
1,2-Dibromo-3-Chloropropane	96-12-8	NA	10 (M); 4.0	ID	220	260	5.6E+5	4,400 (C)	<10		<10	<10	<10	<10	<10	<10
Dibromomethane	74-95-3	NA	1,600	NA	ID	ID	ID	2.5E+6 (C)	<250		<250	<250	<250	<250	<250	<250
1,2-Dichlorobenzene	95-50-1	NA	14,000	280	1.1E+7 (C)	3.90E+07	1.00E+11	1.9E+7 (C)	<100		<100	<100	<100	<100	<100	<100
1,3-Dichlorobenzene	541-73-1	NA	170	680	26,000	79,000	2.00E+08	2.0E+5 (C)	<100		<100	<100	<100	<100	<100	<100
1,4-Dichlorobenzene	106-46-7	NA	1,700	360	19,000	77,000	4.50E+08	4.00E+05	<100		<100	<100	<100	<100	<100	<100
Dichlorodifluoromethane	75-71-8	NA	95,000	ID	9.00E+05	5.30E+07	3.30E+12	5.2E+7 (C)	<250		<250	<250	<250	<250	<250	<250
1,1-Dichloroethane	75-34-3	NA	18,000	15,000	2.30E+05	2.10E+06	3.30E+10	2.7E+7 (C)	<50		<50	<50	<50	<50	<50	<50
1,2-Dichloroethane (I)	107-06-2	NA	100	7,200 (X)	2,100	6,200	1.20E+08	91,000	<50		<50	<50	<50	<50	<50	<50
1,1-Dichloroethylene (I)	75-35-4	NA	140	2,600	62	1,100	6.20E+07	2.00E+05	<50		<50	<50	<50	<50	<50	<50
cis-1,2-Dichloroethylene	156-59-2	NA	1,400	12,000	22,000	1.80E+05	2.30E+09	2.5E+6 (C)	<50		<50	<50	<50	<50	<50	<50
trans-1,2-Dichloroethylene	156-60-5	NA	2,000	30,000 (X)	23,000	2.80E+05	4.70E+09	3.8E+6 (C)	<50		<50	<50	<50	<50	<50	<50
1,2-Dichloropropane (I)	78-87-5	NA	100	4,600 (X)	4,000	25,000	2.70E+08	1.40E+05	<50		<50	<50	<50	<50	<50	<50
1,3-Dichloropropane	142-28-9	NA	NC	NC	NC	NC	NC	NC	<50		<50	<50	<50	<50	<50	<50
2,2-Dichloropropane	594-20-7	NA	NC	NC	NC	NC	NC	NC	<50		<50	<50	<50	<50	<50	<50
1,3-Dichloropropene	542-75-6	NA	170	180 (X)	1,000	18,000	7.80E+08	10,000	<50		<50	<50	<50	<50	<50	<50
1,1-Dichloropropene	563-58-6	NA	NC	NC	NC	NC	NC	NC	<50		<50	<50	<50	<50	<50	<50
Ethylbenzene (I)	100-41-4	NA	1,500	360	87,000	7.20E+05	1.00E+10	2.2E+7 (C)	<50		<50	<50	<50	<50	<50	<50
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	NA	20 (M); 1.0	110 (X)	670	1,700	1.40E+07	92	<20		<20	<20	<20	<20	<20	<20
Hexachlorobutadiene	87-68-3	NA	26,000	91	1.30E+05	1.30E+05	1.40E+08	1.00E+05	<50		<50	<50	<50	<50	<50	<50
2-Hexanone	591-78-6	NA	20,000	ID	9.90E+05	1.10E+06	2.70E+09	3.2E+7 (C)	<2500		<2500	<2500	<2500	<2500	<2500	<2500
Isopropyl benzene	98-82-8	NA	91,000	3,200	4.0E+5 (C)	1.70E+06	5.80E+09	2.5E+7 (C)	<250		<250	<250	<250	<250	<250	<250
4-Methyl-2-pentanone (MIBK) (I)	108-10-1	NA	36,000	ID	3.7E+7 (C)	4.50E+07	1.40E+11	5.6E+7 (C)	<2500		<2500	<2500	<2500	<2500	<2500	<2500
Methyl-tert-butyl ether (MTBE)	1634-04-4	NA	800	1.4E+5 (X)	9.9E+6 (C)	2.50E+07	2.00E+11	1.50E+06	<250		<250	<250	<250	<250	<250	<250
Methylene chloride	75-09-2	NA	100	30,000 (X)	45,000	2.10E+05	6.60E+09	1.30E+06	<250		<250	<250	<250	<250	<250	<250
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.70E+06	1.50E+06	6.70E+08	8.10E+06	<250		<250	<250	<250	<250	<250	<250
Naphthalene	91-20-3	NA	35,000	730	2.50E+05	3.00E+05	2.00E+08	1.60E+07	<250		<250	<250	<250	<250	<250	<250

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										Collection Date	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016	5/13/2016
										Depth	3.5-4.5'	0.5-1.5'	2.0-3.0'	2.5-3.5'	0.5-1.0'	7.0-8.0'
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	ID	ID	1.30E+09	2.50E+06	<100		<100	<100	<100	<100	<100	<100
Styrene	100-42-5	NA	2,700	2,100 (X)	2.50E+05	9.70E+05	5.50E+09	4.00E+05	<50		<50	<50	<50	<50	<50	<50
1,1,1,2-Tetrachloroethane	630-20-6	NA	1,500	ID	6,200	36,000	4.20E+08	4.8E+5 (C)	<100		<100	<100	<100	<100	<100	<100
1,1,2,2-Tetrachloroethane	79-34-5	NA	170	1,600 (X)	4,300	10,000	5.40E+07	53,000	<50		<50	<50	<50	<50	<50	<50
Tetrachloroethylene	127-18-4	NA	100	1,200 (X)	11,000	1.7E+5	2.7E+9	2.0E+5 (C)	<50		<50	<50	<50	<50	<50	<50
Tetrahydrofuran	109-99-9	NA	1,900	2.2E+5 (X)	1.30E+06	1.3E+7	3.9E+11	2.90E+06	<1000		<1000	<1000	<1000	<1000	<1000	<1000
Toluene (I)	108-88-3	NA	16,000	5,400	3.3E+5 (C)	2.80E+06	2.70E+10	5.0E+7 (C)	<100		<100	<100	<100	<100	<100	<100
1,2,3-Trichlorobenzene	87-61-6	NA	NC	NC	NC	NC	NC	NC	<250		<250	<250	<250	<250	<250	<250
1,2,4-Trichlorobenzene	120-82-1	NA	4,200	5,900 (X)	9.6E+6 (C)	2.80E+07	2.50E+10	9.9E+5 (DD)	<250		<250	<250	<250	<250	<250	<250
1,1,1-Trichloroethane	71-55-6	NA	4,000	1,800	2.50E+05	3.80E+06	6.70E+10	5.0E+8 (C)	<50		<50	<50	<50	<50	<50	<50
1,1,2-Trichloroethane	79-00-5	NA	100	6,600 (X)	4,600	17,000	1.90E+08	1.80E+05	<50		<50	<50	<50	<50	<50	<50
Trichloroethylene	79-01-6	NA	100	4,000 (X)	1,000	11,000	1.3E+8	1.1E+5 (DD)	<50		<50	<50	<50	<50	<50	<50
Trichlorofluoromethane	75-69-4	NA	52,000	NA	2.8E+6 (C)	9.20E+07	3.80E+12	7.9E+7 (C)	<100		<100	<100	<100	<100	<100	<100
1,2,3-Trichloropropane	96-18-4	NA	840	NA	4,000	9,200	2.00E+07	1.3E+6 (C)	<100		<100	<100	<100	<100	<100	<100
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	570	4.3E+6 (C)	2.10E+07	8.20E+10	3.2E+7 (C)	<100		<100	<100	<100	<100	<100	<100
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	2.6E+6 (C)	1.60E+07	8.20E+10	3.2E+7 (C)	<100		<100	<100	<100	<100	<100	<100
Vinyl acetate (I)	108-05-4	NA	13,000	NA	7.90E+05	1.70E+06	1.30E+10	5.8E+6 (C,DD)	<5000		<5000	<5000	<5000	<5000	<5000	<5000
Vinyl chloride	75-01-4	NA	40	260 (X)	270	4,200	3.50E+08	3,800	<40		<40	<40	<40	<40	<40	<40
Xylenes (I)	1330-20-7	NA	5,600	820	6.3E+6 (C)	4.60E+07	2.90E+11	4.1E+8 (C)	<150		<150	<150	<150	<150	<150	<150

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Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Residential Particulate Soil Inhalation Criteria & RBSLs	Residential Direct Contact Criteria & RBSLs	Maximum Concentration Detected	Sample ID	B-7	B-8	B-9	B-10	B-11	B-12	B-13
										Collection Date	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017
										Depth	5.5-6.0'	5.0-6.0'	1.5-2.0'	0.5-1.5'	1.0-2.0'	2.0-3.0'	2.0-3.0'
Metals, ug/Kg																	
Arsenic (B)	7440-38-2	5,800	4,600	4,600	NLV	NLV	7.20E+05	7,600	5,700		5,700	4,240	112	412	2,530	880	924
Barium (B)	7440-39-3	75,000	1.30E+06	(G)	NLV	NLV	3.30E+08	3.70E+07	469,000		162,000	469,000	67,100	74,600	87,800	66,400	79,300
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	NLV	NLV	1.70E+06	5.50E+05	2,270		< 200	2,270	< 200	< 200	223	< 200	< 200
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	NLV	NLV	2.60E+05	2.50E+06	60,300		26,400	8,000	9,010	6,410	6,140	8,740	9,130
Copper (B)	7440-50-8	32,000	5.80E+06	(G)	NLV	NLV	1.30E+08	2.00E+07	23,000		13,000	10,600	5,360	5,840	16,300	6,970	9,680
Lead (B)	7439-92-1	21,000	7.00E+05	(G,X)	NLV	NLV	1.00E+08	4.00E+05	1,760,000		69,600	1,760,000	3,820	17,100	59,400	27,900	30,000
Mercury, Total (B, Z)	Varies	130	1,700	50 (M); 1.2	48,000	52,000	2.00E+07	1.60E+05	261		< 50	< 50	64	50	131	78	80
Selenium (B)	7782-49-2	410	4,000	400	NLV	NLV	1.30E+08	2.60E+06	516		< 200	< 200	< 200	< 200	< 200	< 200	< 200
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	NLV	NLV	6.70E+06	2.50E+06	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Zinc (B)	7440-66-6	47,000	2.40E+06	(G)	NLV	NLV	ID	1.70E+08	1,510,000		39,400	1,510,000	10,600	56,600	45,800	29,200	36,000
Semivolatiles, PNAs, ug/Kg																	
Acenaphthene	83-32-9	NA	3.00E+05	8,700	1.90E+08	8.10E+07	1.40E+10	4.10E+07	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Acenaphthylene	208-96-8	NA	5,900	ID	1.60E+06	2.20E+06	2.30E+09	1.60E+06	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Anthracene	120-12-7	NA	41,000	ID	1.0E+9 (D)	1.40E+09	6.70E+10	2.30E+08	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLV	NLV	ID	20,000	467		< 330	467	< 330	< 330	380	< 330	< 330
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	ID	ID	ID	20,000	344		< 330	344	< 330	< 330	< 330	< 330	< 330
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLV	NLV	ID	2.00E+05	326		< 330	< 330	< 330	< 330	326	< 330	< 330
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLV	NLV	8.00E+08	2.50E+06	848		< 330	848	< 330	< 330	< 330	< 330	< 330
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLV	NLV	1.50E+06	2,000	509		< 330	509	< 330	< 330	< 330	< 330	< 330
Chrysene (Q)	218-01-9	NA	NLL	NLL	ID	ID	ID	2.00E+06	523		< 330	523	< 330	< 330	372	< 330	< 330
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLV	NLV	ID	2,000	386		< 330	386	< 330	< 330	< 330	< 330	< 330
Fluoranthene	206-44-0	NA	7.30E+05	5,500	1.0E+9 (D)	7.40E+08	9.30E+09	4.60E+07	691		< 330	348	< 330	< 330	691	< 330	< 330
Fluorene	86-73-7	NA	3.90E+05	5,300	5.80E+08	1.30E+08	9.30E+09	2.70E+07	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLV	NLV	ID	20,000	479		< 330	479	< 330	< 330	< 330	< 330	< 330
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.70E+06	1.50E+06	6.70E+08	8.10E+06	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Naphthalene	91-20-3	NA	35,000	730	2.50E+05	3.00E+05	2.00E+08	1.60E+07	<330		< 330	< 330	< 330	< 330	< 330	< 330	< 330
Phenanthrene	85-01-8	NA	56,000	2,100	2.80E+06	1.60E+05	6.70E+06	1.60E+06	351		< 330	351	< 330	< 330	< 330	< 330	< 330
Pyrene	129-00-0	NA	4.80E+05	ID	1.0E+9 (D)	6.50E+08	6.70E+09	2.90E+07	554		< 330	< 330	< 330	< 330	554	< 330	< 330
Volatiles, VOCs, ug/Kg																	
Acetone (I)	67-64-1	NA	15,000	34,000	2.9E+8 (C)	1.30E+08	3.90E+11	2.30E+07	<1000		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
Benzene (I)	71-43-2	NA	100	4,000 (X)	1,600	13,000	3.80E+08	1.80E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Bromobenzene (I)	108-86-1	NA	550	NA	3.10E+05	4.50E+05	5.30E+08	5.40E+05	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Bromochloromethane	74-97-5	NA	NC	NC	NC	NC	NC	NC	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Bromodichloromethane	75-27-4	NA	1,600 (W)	ID	1,200	9,100	8.40E+07	1.10E+05	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Bromoform	75-25-2	NA	1,600 (W)	ID	1.50E+05	9.00E+05	2.80E+09	8.20E+05	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Bromomethane	74-83-9	NA	200	700	860	11,000	3.30E+08	3.20E+05	<200		< 200	< 200	< 200	< 200	< 200	< 200	< 200
2-Butanone (MEK) (I)	78-93-3	NA	2.60E+05	44,000	5.4E+7 (C)	2.90E+07	6.70E+10	1.2E+8 (C, DD)	<750		< 750	< 750	< 750	< 750	< 750	< 750	< 750

Table 1: Summary of Soil Analytical Data
111 North Madison Avenue
Bay City, Michigan
AKT Peerless Project No. 11146s2

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Residential Particulate Soil Inhalation Criteria & RBSLs	Residential Direct Contact Criteria & RBSLs	Maximum Concentration Detected	Sample ID	B-7	B-8	B-9	B-10	B-11	B-12	B-13
										Collection Date	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017
										Depth	5.5-6.0'	5.0-6.0'	1.5-2.0'	0.5-1.5'	1.0-2.0'	2.0-3.0'	2.0-3.0'
n-Butylbenzene	104-51-8	NA	1,600	ID	ID	ID	2.00E+09	2.50E+06	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
sec-Butylbenzene	135-98-8	NA	1,600	ID	ID	ID	4.00E+08	2.50E+06	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
tert-Butylbenzene (I)	98-06-6	NA	1,600	ID	ID	ID	6.70E+08	2.50E+06	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Carbon disulfide (I,R)	75-15-0	NA	16,000	ID	76,000	1.30E+06	4.70E+10	7.2E+6 (C, DD)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
Carbon tetrachloride	56-23-5	NA	100	900 (X)	190	3,500	1.30E+08	96,000	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Chlorobenzene (I)	108-90-7	NA	2,000	500	1.20E+05	7.70E+05	4.70E+09	4.3E+6 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Chloroethane	75-00-3	NA	8,600	22,000 (X)	2.9E+6 (C)	3.00E+07	6.70E+11	2.6E+6 (C)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
Chloroform	67-66-3	NA	1,600 (W)	7,000	7,200	45,000	1.30E+09	1.20E+06	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Chloromethane (I)	74-87-3	NA	5,200	ID	2,300	40,000	4.90E+09	1.6E+6 (C)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
2-Chlorotoluene (I)	95-49-8	NA	3,300	ID	2.70E+05	1.20E+06	4.70E+09	4.5E+6 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-Chlorotoluene (I)	106-43-4	NA	NC	NC	NC	NC	NC	NC	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Dibromochloromethane	124-48-1	NA	1,600 (W)	ID	3,900	24,000	1.30E+08	1.10E+05	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,2-Dibromo-3-Chloropropane	96-12-8	NA	10 (M); 4.0	ID	220	260	5.6E+5	4,400 (C)	<10		< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dibromomethane	74-95-3	NA	1,600	NA	ID	ID	ID	2.5E+6 (C)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
1,2-Dichlorobenzene	95-50-1	NA	14,000	280	1.1E+7 (C)	3.90E+07	1.00E+11	1.9E+7 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,3-Dichlorobenzene	541-73-1	NA	170	680	26,000	79,000	2.00E+08	2.0E+5 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,4-Dichlorobenzene	106-46-7	NA	1,700	360	19,000	77,000	4.50E+08	4.00E+05	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Dichlorodifluoromethane	75-71-8	NA	95,000	ID	9.00E+05	5.30E+07	3.30E+12	5.2E+7 (C)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
1,1-Dichloroethane	75-34-3	NA	18,000	15,000	2.30E+05	2.10E+06	3.30E+10	2.7E+7 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2-Dichloroethane (I)	107-06-2	NA	100	7,200 (X)	2,100	6,200	1.20E+08	91,000	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1-Dichloroethylene (I)	75-35-4	NA	140	2,600	62	1,100	6.20E+07	2.00E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
cis-1,2-Dichloroethylene	156-59-2	NA	1,400	12,000	22,000	1.80E+05	2.30E+09	2.5E+6 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
trans-1,2-Dichloroethylene	156-60-5	NA	2,000	30,000 (X)	23,000	2.80E+05	4.70E+09	3.8E+6 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2-Dichloropropane (I)	78-87-5	NA	100	4,600 (X)	4,000	25,000	2.70E+08	1.40E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,3-Dichloropropane	142-28-9	NA	NC	NC	NC	NC	NC	NC	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,2-Dichloropropane	594-20-7	NA	NC	NC	NC	NC	NC	NC	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,3-Dichloropropene	542-75-6	NA	170	180 (X)	1,000	18,000	7.80E+08	10,000	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1-Dichloropropene	563-58-6	NA	NC	NC	NC	NC	NC	NC	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Ethylbenzene (I)	100-41-4	NA	1,500	360	87,000	7.20E+05	1.00E+10	2.2E+7 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	NA	20 (M); 1.0	110 (X)	670	1,700	1.40E+07	92	<20		< 20	< 20	< 20	< 20	< 20	< 20	< 20
Hexachlorobutadiene	87-68-3	NA	26,000	91	1.30E+05	1.30E+05	1.40E+08	1.00E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone	591-78-6	NA	20,000	ID	9.90E+05	1.10E+06	2.70E+09	3.2E+7 (C)	<2500		< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500
Isopropyl benzene	98-82-8	NA	91,000	3,200	4.0E+5 (C)	1.70E+06	5.80E+09	2.5E+7 (C)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
4-Methyl-2-pentanone (MIBK) (I)	108-10-1	NA	36,000	ID	3.7E+7 (C)	4.50E+07	1.40E+11	5.6E+7 (C)	<2500		< 2500	< 2500	< 2500	< 2500	< 2500	< 2500	< 2500
Methyl-tert-butyl ether (MTBE)	1634-04-4	NA	800	1.4E+5 (X)	9.9E+6 (C)	2.50E+07	2.00E+11	1.50E+06	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
Methylene chloride	75-09-2	NA	100	30,000 (X)	45,000	2.10E+05	6.60E+09	1.30E+06	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	2.70E+06	1.50E+06	6.70E+08	8.10E+06	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
Naphthalene	91-20-3	NA	35,000	730	2.50E+05	3.00E+05	2.00E+08	1.60E+07	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250

Table 1: Summary of Soil Analytical Data
111 North Madison Avenue
Bay City, Michigan
AKT Peerless Project No. 11146s2

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Residential Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Residential Particulate Soil Inhalation Criteria & RBSLs	Residential Direct Contact Criteria & RBSLs	Maximum Concentration Detected	Sample ID	B-7	B-8	B-9	B-10	B-11	B-12	B-13
										Collection Date	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017	10/12/2017
										Depth	5.5-6.0'	5.0-6.0'	1.5-2.0'	0.5-1.5'	1.0-2.0'	2.0-3.0'	2.0-3.0'
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	ID	ID	1.30E+09	2.50E+06	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Styrene	100-42-5	NA	2,700	2,100 (X)	2.50E+05	9.70E+05	5.50E+09	4.00E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1,1,2-Tetrachloroethane	630-20-6	NA	1,500	ID	6,200	36,000	4.20E+08	4.8E+5 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,1,2,2-Tetrachloroethane	79-34-5	NA	170	1,600 (X)	4,300	10,000	5.40E+07	53,000	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tetrachloroethylene	127-18-4	NA	100	1,200 (X)	11,000	1.7E+5	2.7E+9	2.0E+5 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tetrahydrofuran	109-99-9	NA	1,900	2.2E+5 (X)	1.30E+06	1.3E+7	3.9E+11	2.90E+06	<1000		< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
Toluene (I)	108-88-3	NA	16,000	5,400	3.3E+5 (C)	2.80E+06	2.70E+10	5.0E+7 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,2,3-Trichlorobenzene	87-61-6	NA	NC	NC	NC	NC	NC	NC	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
1,2,4-Trichlorobenzene	120-82-1	NA	4,200	5,900 (X)	9.6E+6 (C)	2.80E+07	2.50E+10	9.9E+5 (DD)	<250		< 250	< 250	< 250	< 250	< 250	< 250	< 250
1,1,1-Trichloroethane	71-55-6	NA	4,000	1,800	2.50E+05	3.80E+06	6.70E+10	5.0E+8 (C)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,1,2-Trichloroethane	79-00-5	NA	100	6,600 (X)	4,600	17,000	1.90E+08	1.80E+05	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Trichloroethylene	79-01-6	NA	100	4,000 (X)	1,000	11,000	1.3E+8	1.1E+5 (DD)	<50		< 50	< 50	< 50	< 50	< 50	< 50	< 50
Trichlorofluoromethane	75-69-4	NA	52,000	NA	2.8E+6 (C)	9.20E+07	3.80E+12	7.9E+7 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,2,3-Trichloropropane	96-18-4	NA	840	NA	4,000	9,200	2.00E+07	1.3E+6 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	570	4.3E+6 (C)	2.10E+07	8.20E+10	3.2E+7 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	2.6E+6 (C)	1.60E+07	8.20E+10	3.2E+7 (C)	<100		< 100	< 100	< 100	< 100	< 100	< 100	< 100
Vinyl acetate (I)	108-05-4	NA	13,000	NA	7.90E+05	1.70E+06	1.30E+10	5.8E+6 (C,DD)	<5000		< 5000	< 5000	< 5000	< 5000	< 5000	< 5000	< 5000
Vinyl chloride	75-01-4	NA	40	260 (X)	270	4,200	3.50E+08	3,800	<40		< 40	< 40	< 40	< 40	< 40	< 40	< 40
Xylenes (I)	1330-20-7	NA	5,600	820	6.3E+6 (C)	4.60E+07	2.90E+11	4.1E+8 (C)	<150		< 150	< 150	< 150	< 150	< 150	< 150	< 150

Table 2

Media-Specific Volatilization to Indoor Air Interim Action Screening Levels

August 2017

CAS #	Hazardous Substance	SOIL		SHALLOW GROUNDWATER		GROUNDWATER				
		RES	NONRES	RES	NONRES	RES		NONRES		
		RIASL µg/kg	RIASL µg/kg	RIASL µg/l	RIASL µg/l	RIASL µg/l	TSRIASL µg/l	RIASL µg/l	RIASL _{1,2} µg/l	TSRIASL _{1,2} µg/l
67641	Acetone	2.6E+05	7.8E+05	50,000	62,000	1.2E+07	1.2E+07	4.7E+07	4.7E+07	1.6E+08
7664417	Ammonia	NA	NA	1,900	2,200	2.5E+05	5.7E+05	2.3E+06	2.3E+06	8.9E+06
71432	Benzene	1.7 (M)	12 (M)	1.0	3.0	14	82	120	230	2,600
57749	Chlordane	13,000	55,000	18	26	56 (S)	56 (S)	56 (S)	56 (S)	56 (S)
108907	Chlorobenzene	82	360	33	54	540	1,600	2,700	5,400	50,000
75003	Chloroethane	330	1,500	620	1,300	6,700	20,000	35,000	69,000	6.7E+05
67663	Chloroform	0.26 (M)	1.9 (M)	0.49 (M)	1.3	7.6	76	61	120	3,800
74873	Chloromethane	6.9 (M)	31 (M)	15	30	160	470	810	1,600	8,000
541731	1,3-Dichlorobenzene	10 (M)	45 (M)	2.6	4.2	52	150	250	510	4,600
106467	1,4-Dichlorobenzene	23 (M)	160	5.9	15	120	1,200	930	1,900	57,000
75343	1,1-Dichloroethane	2.6 (M)	19 (M)	4.7	14	67	670	540	1,100	34,000
75354	1,1-Dichloroethylene	12 (M)	54	18	45	170	510	860	1,700	16,000
156592	cis-1,2-Dichloroethylene	2.1 (M)	9.2 (M)	3.4	5.8	48	140	240	490	4,600
156605	trans-1,2-Dichloroethylene	39 (M)	340	27	78	650	1,900	6,500	6,500	21,000
64175	Ethanol	1.3E+06	4.0E+06	1.0E+05	1.2E+05	5.0E+07	5.0E+07	2.0E+08	2.0E+08	7.7E+08
100414	Ethylbenzene	12 (M)	86	2.8	8.5	45	450	360	710	22,000
110543	n-Hexane	25	110	29	130	29 (GW)	33	130 (GW)	130 (GW)	6,000 (GW)
Varies	Mercury (total)	2.7E-02	0.12	8.8E-02	0.14	1.4	4.3	7.2	14	60 (S)
1634044	Methyl-tert-butyl ether (MTBE)	74 (M)	520	2.5E+02	610	4,000	40,000	32,000	65,000	2.0E+06

Table 2

Media-Specific Volatilization to Indoor Air Interim Action Screening Levels

August 2017

CAS #	Hazardous Substance	SOIL		SHALLOW GROUNDWATER		GROUNDWATER				
		RES	NONRES	RES	NONRES	RES		NONRES		
		RIASL µg/kg	RIASL µg/kg	RIASL µg/l	RIASL µg/l	RIASL µg/l	TSRIASL µg/l	RIASL µg/l	RIASL ₁₂ µg/l	TSRIASL ₁₂ µg/l
75092	Methylene chloride	130	570	79	490	3,900	6,200	20,000	40,000	2.0E+05
127184	Tetrachloroethylene	6.2 (M)	19 (M)	1.5	4.4	96	96	320	640	1,900
108883	Toluene	3,700	16,000	300	850	23,000	33,000	1.1E+05	1.1E+05	3.5E+05
120821	1,2,4-Trichlorobenzene	53 (M)	230 (M)	3.8 (M)	5.8	95	290	460	920	8,100
71556	1,1,1-Trichloroethane	450	1,900	180	750	8,600	8,600	41,000	41,000	1.2E+05
79016	Trichloroethylene	0.33 (M)	1.0 (M)	7.3E-02 (M)	0.21 (M)	6.1	18	21	41	380
526738	1,2,3-Trimethylbenzene	270	1,200	43	71	800	2,400	3,900	7,900	72,000
95636	1,2,4-Trimethylbenzene	150	650	25	44	440	1,300	2,200	4,400	40,000
108678	1,3,5-Trimethylbenzene	100	450	18	34	310	940	1,500	3,100	28,000
108054	Vinyl acetate	160 (M)	720 (M)	690	1,000	10,000	30,000	52,000	1.0E+05	9.9E+05
75014	Vinyl chloride	8.2E-02 (M)	2.0 (M)	0.12 (M)	1.8	0.96 (M)	9.6	28	56	1,800
1330207	Xylenes	280	1,200	75	140	1,200	3,600	6,000	12,000	1.1E+05 (S)

Footnote **RIASL**: Recommended Interim Action Screening Levels. Nonresidential RIASL for soil vapor, soil, shallow groundwater, and groundwater is based on a former residential structure that is now nonresidential use that has an unoccupied basement.

Footnote **RIASL₁₂**: Nonresidential Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours.

Footnote **TSRIASL**: Time-Sensitive Recommended Interim Action Screening Levels.

Footnote **TSRIASL₁₂**: Time-Sensitive Recommended Interim Action Screening Levels appropriate for exposures less than 12 hours for structures that were not formerly residential houses. It may be appropriate to take expedited response actions at former residential structures when concentrations are less than those identified.

Footnote **GW**: The calculated value for a hazardous substance based upon shallow groundwater is considered protective when it is greater than the calculated value for groundwater.

Footnote **M**: Site-specific criterion may be below target detection limits (TDL).

Footnote **S**: Calculated health-based value exceeds the hazardous substance-specific water solubility limit; therefore, the water solubility limit is the criterion.

Appendix A

Soil Boring Logs

				BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s-2-20				B-1	
DRILLING COMPANY: AKT Peerless				WEATHER: 55° Sunny				Drawn By: D. Craig	
TECHNICIAN: Bill Fox				BORING DEPTH: 16' bgs				Date: 5/18/2016	
DATE DRILLED: 05/13/16				DEPTH TO GW: Not encountered					
DRILLING METHOD: GeoProbe				SCREEN INTERVAL: Not applicable					
FIELD GEOLOGIST: David Craig				SCREEN MATERIAL: Not applicable					
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
						Asphalt			
				SW	Brown	Sand -Medium grain, trace gravel, brick	D		
2		60	<0.1	CL	Gray	Clay - Medium, medium-plasticity, trace of fine gravel	D		
4				ML	Brown	Clay - Silty, trace of fine gravel	D		
				CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
6		95	<0.1						
8									
10		100	<0.1						
12									
14		100	<0.1						
16						End of Boring			
18									
20									

AKTPEERLESS				BORING LOG				B-2	
				111 North Madison Avenue				Drawn By: D. Craig	
				Bay City, Michigan				Date: 5/18/2016	
				AKT Peerless Project No: 11146s-2-20					
DRILLING COMPANY:		AKT Peerless			WEATHER:		55° Sunny		
TECHNICIAN:		Bill Fox			BORING DEPTH:		16' bgs		
DATE DRILLED:		05/13/16			DEPTH TO GW:		Not encountered		
DRILLING METHOD:		GeoProbe			SCREEN INTERVAL:		Not applicable		
FIELD GEOLOGIST:		David Craig			SCREEN MATERIAL:		Not applicable		
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
2		60	<0.1			Asphalt			
				SW	Brown	Sand -Medium grain, trace gravel, brick	D		
				CL	Gray	Clay - Medium, medium-plasticity, trace of fine gravel	D		
				ML	Brown	Clay - Silty, trace of fine gravel	D		
				CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
4		95	<0.1						
6		100	<0.1						
8		100	<0.1						
10		100	<0.1						
12		100	<0.1						
14		100	<0.1						
16		100	<0.1			End of Boring			
18		100	<0.1						
20		100	<0.1						

AKT PEERLESS				BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s-2-20				B-3 Drawn By: D. Craig Date: 5/18/2016	
DRILLING COMPANY:		AKT Peerless			WEATHER:		55° Sunny		
TECHNICIAN:		Bill Fox			BORING DEPTH:		11' bgs		
DATE DRILLED:		05/13/16			DEPTH TO GW:		Not encountered		
DRILLING METHOD:		GeoProbe			SCREEN INTERVAL:		Not applicable		
FIELD GEOLOGIST:		David Craig			SCREEN MATERIAL:		Not applicable		
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
2		100	<0.1			Asphalt			
				SW	Black	Sand -Medium grain, trace gravel, brick	D		
4				CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
6		100	<0.1						
8				ML	Brown	Clay - Silty, trace of fine gravel	D		
10		100	<0.1	CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
12						End of Boring			
14									
16									
18									
20									

AKTPEERLESS		BORING LOG				B-4		
		111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s-2-20				Drawn By: D. Craig Date: 5/18/2016		
DRILLING COMPANY:		AKT Peerless		WEATHER:		55° Sunny		
TECHNICIAN:		Bill Fox		BORING DEPTH:		12' bgs		
DATE DRILLED:		05/13/16		DEPTH TO GW:		Not encountered		
DRILLING METHOD:		GeoProbe		SCREEN INTERVAL:		Not applicable		
FIELD GEOLOGIST:		David Craig		SCREEN MATERIAL:		Not applicable		
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
2		70	<0.1			Asphalt		
				SW	Brown	Sand -Medium grain, trace gravel	D	
				SW	Black	Sand -Medium grain, trace gravel, brick	D	
				CH	Gray	Clay - Stiff, high-plasticity, trace of fine gravel, brick	D	
4		95	<0.1	CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D	
6								
8		100	<0.1					
10								
12						End of Boring		
14								
16								
18								
20								

AKT PEERLESS				BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s-2-20				B-5 Drawn By: D. Craig Date: 5/18/2016	
DRILLING COMPANY:				AKT Peerless		WEATHER:		55° Sunny	
TECHNICIAN:				Bill Fox		BORING DEPTH:		8' bgs	
DATE DRILLED:				05/13/16		DEPTH TO GW:		Not encountered	
DRILLING METHOD:				GeoProbe		SCREEN INTERVAL:		Not applicable	
FIELD GEOLOGIST:				David Craig		SCREEN MATERIAL:		Not applicable	
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
						Asphalt			
				SW	Black	Sand -Medium grain, trace gravel, brick	D		
				CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
2		70	<0.1						
4									
6		95	<0.1						
8						End of Boring			
10									
12									
14									
16									
18									
20									

AKT PEERLESS				BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s-2-20				B-6 Drawn By: D. Craig Date: 5/18/2016	
DRILLING COMPANY:		AKT Peerless			WEATHER:		55° Sunny		
TECHNICIAN:		Bill Fox			BORING DEPTH:		12' bgs		
DATE DRILLED:		05/13/16			DEPTH TO GW:		Not encountered		
DRILLING METHOD:		GeoProbe			SCREEN INTERVAL:		Not applicable		
FIELD GEOLOGIST:		David Craig			SCREEN MATERIAL:		Not applicable		
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
2		70	<0.1			Asphalt			
				SW	Brown	Sand -Medium grain, trace gravel	D		
				CH	Brown	Clay - Stiff, high-plasticity, trace of fine gravel	D		
4									
6		100	<0.1						
8									
10		100	<0.1						
12									
14						End of Boring			
16									
18									
20									

		BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20				B-7		
						Drawn By: Ryan Sullivan Date: 10/13/2017		
		DRILLING COMPANY: AKT Peerless		WEATHER: 60°, cloudy				
TECHNICIAN: John Warner		BORING DEPTH: 8'						
DATE DRILLED: 10/12/17		DEPTH TO GW: NA						
DRILLING METHOD: Push Probe		SCREEN INTERVAL: NA						
FIELD GEOLOGIST: Ryan Sullivan		SCREEN MATERIAL: NA						
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
2		90%	<.01		Grey	Asphalt	D	
				SW	Light Brown	Sand - Trace gravels	D	
				SW	Dark Brown	Sand	M	
				SM	Light Brown	Sand	M	
				CH	Dark Grey	Clay - High plasticity	M	
4		90%	<.01	SC	Dark Brown	Clayey Sand	W	
6	SW			Dark Brown	Sand - Trace gravels			
6	CL			Light Brown	Clay - Stiff, low plasticity			
8						End of Boring		
10								
12								
14								
16								
18								
20								

AKTPEERLESS				BORING LOG				B-8	
				111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20				Drawn By: Ryan Sullivan Date: 10/13/2017	
DRILLING COMPANY:				AKT Peerless				WEATHER: 60°, cloudy	
TECHNICIAN:				John Warner				BORING DEPTH: 8'	
DATE DRILLED:				10/12/17				DEPTH TO GW: NA	
DRILLING METHOD:				Push Probe				SCREEN INTERVAL: NA	
FIELD GEOLOGIST:				Ryan Sullivan				SCREEN MATERIAL: NA	
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
2		90%	<.01		Grey	Asphalt	D		
				SW	Brown	Sand - Trace gravels	M		
				SW	Light Brown	Sand	M		
4				CH	Dark Grey	Clay - Medium stiffness	M		
6		90%	<.01						
				CL	Light Brown	Clay - Stiff, low plasticity	M		
8						End of Boring			
10									
12									
14									
16									
18									
20									

		BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20			B-10			
					Drawn By: Ryan Sullivan Date: 10/13/2017			
DRILLING COMPANY:		AKT Peerless			WEATHER: 60°, cloudy			
TECHNICIAN:		John Warner			BORING DEPTH: 7'			
DATE DRILLED:		10/12/17			DEPTH TO GW: NA			
DRILLING METHOD:		Push Probe			SCREEN INTERVAL: NA			
FIELD GEOLOGIST:		Ryan Sullivan			SCREEN MATERIAL: NA			
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
					Grey	Asphalt	D	
				CH	Dark Grey	Clay - High plasticity	M	
2		90%	<.01	CL	Brown	Clay - Trace gravels, low plasticity	M	
4								
6		75%	<.01					
8						End of Boring		
10								
12								
14								
16								
18								
20								

AKTPEERLESS				BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20				B-11 Drawn By: Ryan Sullivan Date: 10/13/2017			
DRILLING COMPANY:				AKT Peerless				WEATHER:		60°, cloudy	
TECHNICIAN:				John Warner				BORING DEPTH:		7'	
DATE DRILLED:				10/12/17				DEPTH TO GW:		NA	
DRILLING METHOD:				Push Probe				SCREEN INTERVAL:		NA	
FIELD GEOLOGIST:				Ryan Sullivan				SCREEN MATERIAL:		NA	
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM			
2		90%	<.01		Grey	Asphalt	D				
				SC	Dark grey	Clayey Sand - Trace gravels	D				
				CH	Brown	Clay -Trace gravels	D				
				CL	Light brown	Clay - Low plasticity, trace gravels	D				
6		90%	<.01								
8						End of Boring					
10											
12											
14											
16											
18											
20											

		BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20			B-12				
					Drawn By: Ryan Sullivan Date: 10/13/2017				
DRILLING COMPANY:		AKT Peerless		WEATHER:		60°, cloudy			
TECHNICIAN:		John Warner		BORING DEPTH:		12'			
DATE DRILLED:		10/12/17		DEPTH TO GW:		NA			
DRILLING METHOD:		Push Probe		SCREEN INTERVAL:		NA			
FIELD GEOLOGIST:		Ryan Sullivan		SCREEN MATERIAL:		NA			
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM	
2		90%	<.01		Grey	Asphalt	D		
				SW	Light Brown	Sand - Trace gravels	D		
				CH	Dark Grey	Clay - Trace gravels, high plasticity	D		
				CL	Light brown	Clay - Trace gravels, low plasticity	D		
4									
6		90%	<.01						
8									
10		90%	<0.1						
12						End of Boring			
14									
16									
18									
20									

		BORING LOG 111 North Madison Avenue Bay City, Michigan AKT Peerless Project No: 11146s2-3-20				B-13		
						Drawn By: Ryan Sullivan Date: 10/13/2017		
DRILLING COMPANY:		AKT Peerless			WEATHER:		60°, cloudy	
TECHNICIAN:		John Warner			BORING DEPTH:		8'	
DATE DRILLED:		10/12/17			DEPTH TO GW:		NA	
DRILLING METHOD:		Push Probe			SCREEN INTERVAL:		NA	
FIELD GEOLOGIST:		Ryan Sullivan			SCREEN MATERIAL:		NA	
DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
2		90%	<.01	SM	Dark Brown	Silty Sand - Topsoil	M	
				SW	Brown	Sand - Trace gravels	D	
				SC	Reddish Brown	Clayey Sand	D	
4				CL	Light Brown	Clay - Low plasticity, trace gravels	D	
6		90%	<.01					
8						End of Boring		
10								
12								
14								
16								
18								
20								

Appendix B

Laboratory Analytical Results

ANALYTICAL REPORT

For: AKT Peerless.
214 Janes Ave.
Saginaw, MI 48607

Report Number: 8936
Report Date: May 24, 2016
Project Name: Chemical Bank
Project Number: 11146s-2-20
Page: 1 of 20
989-754-9896 Fax: 989-754-3804

Attn: Mr. David Craig

Sample Description

Six (6) samples reported to be Soil and identified as "Chemical Bank", Bay City, MI, 5/13/16, Grab and:

1. B-1, 8:45
2. B-2, 9:05
3. B-3, 9:20
4. B-4, 9:45
5. B-5, 9:55
6. B-6, 10:20

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B and 5035 (All Samples)
2. Polynuclear Aromatic Hydrocarbons (PNA), Method 8270C (Samples 1, 3, 4 and 5)
3. 10 Michigan Metals (Samples 1, 4 and 5)
 - a) Arsenic, Method 7010
 - b) Barium, Method 7010
 - c) Cadmium, Method 7010
 - d) Chromium, Method 7010
 - e) Copper, Method 7010
 - f) Lead, Method 7010
 - g) Mercury, Method 7471B
 - h) Selenium, Method 7010
 - i) Silver, Method 7010
 - j) Zinc, Method 7010

Analytical Results

Sample Description:		B-1, 8:45, 5/13/16				
Laboratory ID:	8936-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:		B-1, 8:45, 5/13/16				
Laboratory ID:	8936-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	82.9%	-	% Recovery	05/19/16	BD	
Toluene-d8	105%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	104%	-	% Recovery	05/19/16	BD	
continued						

Sample Description:	B-1, 8:45, 5/13/16					
Laboratory ID:	8936-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Surrogate Standards						
Nitrobenzene-d5	53.7%	-	% Recovery	05/20/16	BD	
2-Fluorobiphenyl	58.7%	-	% Recovery	05/20/16	BD	
Terphenyl-d14	68.1%	-	% Recovery	05/20/16	BD	
Michigan Metals						
Arsenic	4400	100	µg/Kg, dry wt.	05/19/16	DS	
Barium	93100	1000	µg/Kg, dry wt.	05/23/16	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	05/19/16	DS	
Chromium	8330	2000	µg/Kg, dry wt.	05/19/16	DS	
Copper	6220	1000	µg/Kg, dry wt.	05/19/16	DS	
Lead	2890	1000	µg/Kg, dry wt.	05/19/16	DS	
Mercury	261	50	µg/Kg, dry wt.	05/24/16	DS	
Selenium	516	200	µg/Kg, dry wt.	05/19/16	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	05/23/16	DS	
Zinc	15600	1000	µg/Kg, dry wt.	05/19/16	DS	
Analysis Information						
Dry Weight Solids	89.7%	-	% by weight	05/17/16	BD	
PNA Extraction	Completed	-	-	05/19/16	BD	
Mercury Digestion	Completed	-	-	05/23/16	LB	
Metals Digestion	Completed	-	-	05/19/16	DS	

Sample Description:	B-2, 9:05, 5/13/16					
Laboratory ID:	8936-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:	B-2, 9:05, 5/13/16					
Laboratory ID:	8936-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	80.1%	-	% Recovery	05/19/16	BD	
Toluene-d8	101%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	99.9%	-	% Recovery	05/19/16	BD	
Analysis Information						
Dry Weight Solids	88.4%	-	% by weight	05/17/16	BD	

Sample Description:	B-3, 9:20, 5/13/16					
Laboratory ID:	8936-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:		B-3, 9:20, 5/13/16				
Laboratory ID:	8936-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	85.7%	-	% Recovery	05/19/16	BD	
Toluene-d8	103%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	106%	-	% Recovery	05/19/16	BD	
continued						

Sample Description:	B-3, 9:20, 5/13/16					
Laboratory ID:	8936-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Surrogate Standards						
Nitrobenzene-d5	64.9%	-	% Recovery	05/20/16	BD	
2-Fluorobiphenyl	67.0%	-	% Recovery	05/20/16	BD	
Terphenyl-d14	75.9%	-	% Recovery	05/20/16	BD	
Analysis Information						
Dry Weight Solids	86.4%	-	% by weight	05/17/16	BD	
PNA Extraction	Completed	-	-	05/19/16	BD	

Sample Description:	B-4, 9:45, 5/13/16					
Laboratory ID:	8936-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:		B-4, 9:45, 5/13/16				
Laboratory ID:	8936-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	85.9%	-	% Recovery	05/19/16	BD	
Toluene-d8	106%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	102%	-	% Recovery	05/19/16	BD	
continued						

Sample Description:	B-4, 9:45, 5/13/16					
Laboratory ID:	8936-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Surrogate Standards						
Nitrobenzene-d5	68.1%	-	% Recovery	05/20/16	BD	
2-Fluorobiphenyl	72.5%	-	% Recovery	05/20/16	BD	
Terphenyl-d14	78.7%	-	% Recovery	05/20/16	BD	
Michigan Metals						
Arsenic	2570	100	µg/Kg, dry wt.	05/19/16	DS	
Barium	148000	1000	µg/Kg, dry wt.	05/23/16	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	05/19/16	DS	
Chromium	60300	2000	µg/Kg, dry wt.	05/19/16	DS	
Copper	10300	1000	µg/Kg, dry wt.	05/19/16	DS	
Lead	8130	1000	µg/Kg, dry wt.	05/19/16	DS	
Mercury	Not Detected	50	µg/Kg, dry wt.	05/24/16	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	05/19/16	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	05/23/16	DS	
Zinc	15600	1000	µg/Kg, dry wt.	05/19/16	DS	
Analysis Information						
Dry Weight Solids	90.9%	-	% by weight	05/17/16	BD	
PNA Extraction	Completed	-	-	05/19/16	BD	
Mercury Digestion	Completed	-	-	05/23/16	LB	
Metals Digestion	Completed	-	-	05/19/16	DS	

Sample Description:	B-5, 9:55, 5/13/16					
Laboratory ID:	8936-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:		B-5, 9:55, 5/13/16				
Laboratory ID:	8936-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	89.1%	-	% Recovery	05/19/16	BD	
Toluene-d8	107%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	103%	-	% Recovery	05/19/16	BD	
continued						

Sample Description:	B-5, 9:55, 5/13/16					
Laboratory ID:	8936-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	05/20/16	BD	
Surrogate Standards						
Nitrobenzene-d5	73.8%	-	% Recovery	05/20/16	BD	
2-Fluorobiphenyl	76.5%	-	% Recovery	05/20/16	BD	
Terphenyl-d14	77.8%	-	% Recovery	05/20/16	BD	
Michigan Metals						
Arsenic	1640	100	µg/Kg, dry wt.	05/19/16	DS	
Barium	92200	1000	µg/Kg, dry wt.	05/23/16	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	05/19/16	DS	
Chromium	46400	2000	µg/Kg, dry wt.	05/19/16	DS	
Copper	23000	1000	µg/Kg, dry wt.	05/19/16	DS	
Lead	72100	1000	µg/Kg, dry wt.	05/19/16	DS	
Mercury	Not Detected	50	µg/Kg, dry wt.	05/24/16	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	05/19/16	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	05/23/16	DS	
Zinc	47200	1000	µg/Kg, dry wt.	05/19/16	DS	
Analysis Information						
Dry Weight Solids	85.7%	-	% by weight	05/17/16	BD	
PNA Extraction	Completed	-	-	05/19/16	BD	
Mercury Digestion	Completed	-	-	05/23/16	LB	
Metals Digestion	Completed	-	-	05/19/16	DS	

Sample Description:	B-6, 10:20, 5/13/16					
Laboratory ID:	8936-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	05/19/16	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	05/19/16	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	05/19/16	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
continued						

Sample Description:	B-6, 10:20, 5/13/16					
Laboratory ID:	8936-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOCs, cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	05/19/16	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
2-Hexanone	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2500	µg/Kg, dry wt.	05/19/16	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Tetrahydrofuran	Not Detected	1000	µg/Kg, dry wt.	05/19/16	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	05/19/16	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	05/19/16	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Acetate	Not Detected	5000	µg/Kg, dry wt.	05/19/16	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	05/19/16	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	05/19/16	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	82.7%	-	% Recovery	05/19/16	BD	
Toluene-d8	105%	-	% Recovery	05/19/16	BD	
4-Bromofluorobenzene	107%	-	% Recovery	05/19/16	BD	
Analysis Information						
Dry Weight Solids	91.6%	-	% by weight	05/17/16	BD	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 8936-1		Matrix: Soil		Units: ppb in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
1,1-Dichloroethene	0.0	25	22	25	88	100	12.8	
Benzene	0.0	25	23	28	92	112	19.6	
Trichloroethene	0.0	25	26	26	104	104	0.0	
Toluene	0.0	25	27	26	108	104	3.8	
Chlorobenzene	0.0	25	25	25	100	100	0.0	

PNA Matrix Spike Data

Spiked Sample: 8936-4		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Acenaphthene	0.0	20	12	12	60	60	0.0	
Phenanthrene	0.0	20	13	13	65	65	0.0	
Fluoranthene	0.0	20	14	13	70	65	7.4	
Pyrene	0.0	20	16	17	80	85	6.1	
Chrysene	0.0	20	14	13	70	65	7.4	

Metals Matrix Spike Data

Spiked Sample: 8937-4 (8937 LCS for Ba)		Matrix: Soil		Units: ppb in solution				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Arsenic	21.5	12.5	27.2	30.7	45	73	12.1	
Barium	0.0	100	106	91	106	91	14.7	
Cadmium	0.4	1.3	1.2	1.2	66	69	3.0	
Chromium	22.9	10	29.5	29.9	66	70	1.4	
Copper	27.2	25	51.9	49.2	99	88	5.2	
Lead	379	25	172	182	NC	NC	5.4	F
Mercury	0.0	5.0	5.2	4.9	103	99	4.5	
Selenium	3.9	25	5.6	6.5	7	11	14.6	
Silver	0.0	5.0	4.8	5.0	97	101	4.0	
Zinc	248.0	500	609	586	72	68	3.8	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager



COMPANY	AKT Peerless
ADDRESS	214 Jones Ave
CITY, STATE, ZIP	Saginaw, MI 48607
TELEPHONE	984-548-1111
FAX	984-754-3804
CONTACT	David Craig
ADDITIONAL PHONE	
EMAIL ADDRESS	craigd@aktpeerless.com

** GRAB/COMP: G=Grab Sample, C=Composite Sample

May 24, 2016
Chemical Bank
11146s-2-20
20 of 20

Women's Business Enterprise
National Council



Cert. No. 2005111505

CLIENT INFO				PROJECT INFO				ANALYSIS REQUESTED				REMARKS / PRESERVATIVES						
COMPANY	ADDRESS	CITY, STATE, ZIP	TELEPHONE	REPORT NO. (LAB USE)	P.O. NUMBER	PROJECT NUMBER	PROJECT NAME	SAMPLING LOCATION	SAMPLES COLLECTED BY	TURN AROUND TIME	SPECIAL INSTRUCTIONS	LAB USE	LINE NO.	DATE	TIME	NUMBER OF CONTAINERS	SAMPLE TYPE *	GRAB / COMP **
AKT Peerless	214 Jones Ave	Saginaw, MI 48607	984-548-1111	1146s-2-20	1146s	Chemical Bank	Bay City, MI	OC		☒ Standard ☐ Rush ☐ By Date:			1	5/13/16	8:45	2	S	G
			984-754-3804										2	5/13/16	9:05	2	S	G
			David Craig										3	5/13/16	9:20	2	S	G
													4	5/13/16	9:45	2	S	G
													5	5/13/16	9:55	2	S	G
													6	5/13/16	10:20	2	S	G
													7					
													8					
													9					
													10					

XFER	RELINQUISHED BY	TIME / DATE	ACCEPTED BY	SAMPLE RECEIVED	
				☐ Wet Ice	☐ Blue Ice
1	<i>Qut Cup</i>	3:30 / 5/13/16	AKTP Storage		
2	<i>AKTP Storage</i>	10:45 5-17-16	<i>[Signature]</i>		
3	<i>AKTP Storage</i>	12:04 5-13-16	<i>[Signature]</i>		

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

M Matrix interference observed
F Matrix spike four times rule applied
C See Case Narrative

ANALYTICAL REPORT

For: AKT Peerless.
214 Janes Ave.
Saginaw, MI 48607

Report Number: 9542
Report Date: October 20, 2017
Project Name: -
Project Number: 11146s
Page: 1 of 25
989-754-9896 Fax: 989-754-3804

Attn: Mr. Sean Robinson

Sample Description

Seven (7) samples reported to be Soil and identified as "11146s", 10/12/17, Grab and:

1. B-9, 0800
2. B-10, 0830
3. B-11, 0900
4. B-7, 0930
5. B-8, 1000
6. B-12, 1030
7. B-13, 1100

Analysis Requested

Chemical Analysis per SW-846 (SW) for:

1. Volatile Organic Compounds (VOC), Methods 8260B and 5035
2. Polynuclear Aromatic Hydrocarbons (PNA), Method 8270C
3. 10 Michigan Metals
 - a) Arsenic, Method 7010
 - b) Barium, Method 7010
 - c) Cadmium, Method 7010
 - d) Chromium, Method 7010
 - e) Copper, Method 7010
 - f) Lead, Method 7010
 - g) Mercury, Method 7471B
 - h) Selenium, Method 7010
 - i) Silver, Method 7010
 - j) Zinc, Method 7010

Analytical Results

Sample Description:		B-9, 0800, 10/12/17				
Laboratory ID:	9542-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-9, 0800, 10/12/17				
Laboratory ID:	9542-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	103%	-	% Recovery	10/17/17	BD	
Toluene-d8	92.9%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	104%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-9, 0800, 10/12/17					
Laboratory ID:	9542-1	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	58.8%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	61.7%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	63.8%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	112	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	67,100	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	9,010	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	5,360	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	3,820	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	64	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	10,600	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	88.7%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-10, 0830, 10/12/17					
Laboratory ID:	9542-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-10, 0830, 10/12/17				
Laboratory ID:	9542-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	95.9%	-	% Recovery	10/17/17	BD	
Toluene-d8	91.0%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	106%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-10, 0830, 10/12/17					
Laboratory ID:	9542-2	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	50.5%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	55.7%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	59.2%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	412	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	74,600	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	6,410	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	5,840	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	17,100	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	50	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	56,600	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	86.0%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-11, 0900, 10/12/17					
Laboratory ID:	9542-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-11, 0900, 10/12/17				
Laboratory ID:	9542-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	96.9%	-	% Recovery	10/17/17	BD	
Toluene-d8	90.3%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	99.1%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-11, 0900, 10/12/17					
Laboratory ID:	9542-3	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	380	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	326	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	372	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	691	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	554	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	60.8%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	62.3%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	65.4%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	2,530	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	87,800	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	223	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	6,140	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	16,300	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	59,400	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	131	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	45,800	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	88.2%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-7, 0930, 10/12/17					
Laboratory ID:	9542-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-7, 0930, 10/12/17				
Laboratory ID:	9542-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	96.3%	-	% Recovery	10/17/17	BD	
Toluene-d8	95.0%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	109%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-7, 0930, 10/12/17					
Laboratory ID:	9542-4	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	44.3%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	52.6%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	64.4%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	5,700	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	162,000	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	26,400	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	13,000	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	69,600	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	Not Detected	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	39,400	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	90.5%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-8, 1000, 10/12/17					
Laboratory ID:	9542-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-8, 1000, 10/12/17				
Laboratory ID:	9542-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	99.2%	-	% Recovery	10/17/17	BD	
Toluene-d8	93.3%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	111%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-8, 1000, 10/12/17					
Laboratory ID:	9542-5	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	467	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	344	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	848	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	509	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	523	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	386	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	348	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	479	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	351	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	58.8%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	65.0%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	58.0%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	4,240	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	469,000	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	2,270	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	8,000	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	10,600	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	1,760,000	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	Not Detected	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	1,510,000	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	78.9%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-12, 1030, 10/12/17					
Laboratory ID:	9542-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-12, 1030, 10/12/17				
Laboratory ID:	9542-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	96.1%	-	% Recovery	10/17/17	BD	
Toluene-d8	95.1%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	107%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-12, 1030, 10/12/17					
Laboratory ID:	9542-6	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	51.3%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	55.4%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	60.8%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	880	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	66,400	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	8,740	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	6,970	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	27,900	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	78	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	29,200	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	88.4%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Sample Description:	B-13, 1100, 10/12/17					
Laboratory ID:	9542-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
<i>Volatile Organic Compounds</i>						
Acetone	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Benzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Bromobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromodichloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromoform	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Bromomethane	Not Detected	200	µg/Kg, dry wt.	10/17/17	BD	
2-Butanone (MEK)	Not Detected	750	µg/Kg, dry wt.	10/17/17	BD	
n-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
sec-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
tert-Butylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Carbon disulfide	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Carbon tetrachloride	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chlorobenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloroethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Chloroform	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Chloromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
4-Chlorotoluene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Dibromochloromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dibromo-3-chloropropane	Not Detected	10	µg/Kg, dry wt.	10/17/17	BD	
Dibromomethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,4-Dichlorobenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Dichlorodifluoromethane	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
trans-1,2-Dichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,3-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2,2-Dichloropropane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
cis-1,3-Dichloropropene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
continued						

Sample Description:		B-13, 1100, 10/12/17				
Laboratory ID:	9542-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
VOC's, Cont'd						
Ethylbenzene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Ethylene Dibromide (1,2-Dibromoethane)	Not Detected	20	µg/Kg, dry wt.	10/17/17	BD	
Hexachlorobutadiene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
2-Hexanone	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Isopropyl benzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
4-Methyl-2-pentanone (MIBK)	Not Detected	2,500	µg/Kg, dry wt.	10/17/17	BD	
Methyl-t-butyl ether (MTBE)	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Methylene chloride	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
n-Propylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Styrene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,1,2-Tetrachloroethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,1,2,2-Tetrachloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrachloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Tetrahydrofuran	Not Detected	1,000	µg/Kg, dry wt.	10/17/17	BD	
Toluene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trichlorobenzene	Not Detected	250	µg/Kg, dry wt.	10/17/17	BD	
1,1,1-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
1,1,2-Trichloroethane	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichloroethylene	Not Detected	50	µg/Kg, dry wt.	10/17/17	BD	
Trichlorofluoromethane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,3-Trichloropropane	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,2,4-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
1,3,5-Trimethylbenzene	Not Detected	100	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Acetate	Not Detected	5,000	µg/Kg, dry wt.	10/17/17	BD	
Vinyl Chloride	Not Detected	40	µg/Kg, dry wt.	10/17/17	BD	
Xylene (Total)	Not Detected	150	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
1,2-Dichloroethane-d4	98.7%	-	% Recovery	10/17/17	BD	
Toluene-d8	91.4%	-	% Recovery	10/17/17	BD	
4-Bromofluorobenzene	102%	-	% Recovery	10/17/17	BD	
continued						

Sample Description:	B-13, 1100, 10/12/17					
Laboratory ID:	9542-7	Reporting Limit	Units of Measure	Date of Analysis	Analyst	Data Qualifiers
PNAs						
Acenaphthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Acenaphthylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(b)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(k)fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(g,h,i)perylene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Benzo(a)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Chrysene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Dibenz(a,h)anthracene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluoranthene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Fluorene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Indeno(1,2,3-cd)pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
2-Methylnaphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Naphthalene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Phenanthrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Pyrene	Not Detected	330	µg/Kg, dry wt.	10/17/17	BD	
Surrogate Standards						
Nitrobenzene-d5	64.3%	-	% Recovery	10/17/17	BD	
2-Fluorobiphenyl	64.6%	-	% Recovery	10/17/17	BD	
Terphenyl-d14	67.7%	-	% Recovery	10/17/17	BD	
Michigan Metals						
Arsenic	924	100	µg/Kg, dry wt.	10/18/17	DS	
Barium	79,300	1,000	µg/Kg, dry wt.	10/19/17	DS	
Cadmium	Not Detected	200	µg/Kg, dry wt.	10/19/17	DS	
Chromium	9,130	2,000	µg/Kg, dry wt.	10/18/17	DS	
Copper	9,680	1,000	µg/Kg, dry wt.	10/18/17	DS	
Lead	30,000	1,000	µg/Kg, dry wt.	10/18/17	DS	
Mercury	80	50	µg/Kg, dry wt.	10/20/17	DS	
Selenium	Not Detected	200	µg/Kg, dry wt.	10/20/17	DS	
Silver	Not Detected	100	µg/Kg, dry wt.	10/18/17	DS	
Zinc	36,000	1,000	µg/Kg, dry wt.	10/18/17	DS	
Analysis Information						
Dry Weight Solids	92.4%	-	% by weight	10/16/17	BD	
PNA Extraction	Completed	-	-	10/17/17	BD	
Mercury Digestion	Completed	-	-	10/20/17	DS	
Metals Digestion	Completed	-	-	10/17/17	DS	

Quality Control

VOC Matrix Spike Data

Spiked Sample: 9546-1		Matrix: Soil		Units: ppb in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
1,1-Dichloroethene	0.0	25	19	18	76	72	5.4	
Benzene	0.0	25	21	20	84	80	4.9	
Trichloroethene	0.0	25	23	22	92	88	4.4	
Toluene	0.0	25	22	21	88	84	4.7	
Chlorobenzene	0.0	25	21	20	84	80	4.9	

PNA Matrix Spike Data

Spiked Sample: 9543-3		Matrix: Soil		Units: ppm in extract				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Acenaphthene	0.0	20	14	14	70	70	0.0	
Phenanthrene	0.0	20	12	12	60	60	0.0	
Fluoranthene	0.0	20	13	14	65	70	7.4	
Pyrene	0.0	20	12	12	60	60	0.0	
Chrysene	0.0	20	13	13	65	65	0.0	

Metals Matrix Spike Data

Spiked Sample: 9542-1		Matrix: Soil		Units: ppb in solution				
Parameter	Sample Result	Spike Added	MS Result	MSD Result	MS % Rec.	MSD % Rec.	RPD	Data Qualifiers
Arsenic	0.6	12.5	5.0	4.4	35	31	12.3	
Barium	15.7	100	149	131	134	115	13.1	
Cadmium	0.2	1.3	1.3	1.3	89	92	2.6	
Chromium	45.0	10	65.6	60.4	206	154	8.2	
Copper	26.8	25	55.0	52.4	113	103	4.8	
Lead	19.1	25	45.8	48.4	107	117	5.6	
Mercury	1.0	5.0	5.3	5.3	85	86	1.0	
Selenium	0.0	25	0.3	0.4	1	2	26.9	
Silver	0.0	5.0	3.7	3.6	73	73	0.8	
Zinc	53	500	510	484	91	86	5.2	

Case Narrative

All method protocols and quality control requirements were satisfied for all samples.

Notes

- (1) Quality Control Limits available upon request.
- (2) Results are applicable only to the sample tested.
- (3) All samples will be discarded after 30 days unless the laboratory receives other instructions.
- (4) Chain of Custody document attached.

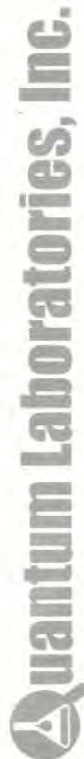
QUANTUM LABORATORIES, INC.



David W. Starr
Analytical Chemistry Manager

QUANTUM LABORATORIES, INC.
28221 Beck Road | Suite A-11
Wixom, MI 48393
248-348-TEST or 248-348-8378

Women's Business Enterprise
National Council
WBENC
Cert. No. 2005111505



CHAIN OF CUSTODY RECORD

CLIENT INFO	
COMPANY	AKT Peerless
ADDRESS	214 James Ave
CITY, STATE, ZIP	SAGINAW, MI 48607
TELEPHONE	(989) 754-9896
FAX	(989) 754-3804
CONTACT	Sean Robinson
ADDITIONAL PHONE	
EMAIL ADDRESS	robinson@aktpeerless.com

* SAMPLE TYPE: S=Soil, W=Water, D=Drinking Water, O=Oil/Organic, M=Mixed, V=Vapor, A=Air
U=Unknown or Other

** GRAB/COMP: G=Grab Sample, C=Composite Sample

PROJECT INFO		REPORT NO. (LAB USE)	9542	Page	1 of 1			
P.O. NUMBER								
PROJECT NUMBER		11146s						
PROJECT NAME								
SAMPLING LOCATION								
SAMPLES COLLECTED BY								
TURN AROUND TIME		☒ Standard ☐ Rush ☐ By Date:						
SPECIAL INSTRUCTIONS								
ANALYSIS REQUESTED		VOC, PH, 10 ML METALS						
LINE NO.	LAB USE	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TIME SAMPLED	DATE SAMPLED	SAMPLE TYPE *	GRAB / COMP **	REMARKS / PRESERVATIVES
1	B-9		2	0800	10-12-17	G	X	Sean Will
2	B-10		2	0830	10-12-17	G	X	CALL WITH
3	B-11		2	0900	10-12-17	G		TESTING
4	B-7		2	0930	10-12-17	G		PARAMETERS
5	B-8		2	1000	10-12-17	G		
6	B-12		2	1030	10-12-17	G		REC'd INFO
7	B-13		2	1100	10-12-17	G		10/16/17 - S.R.
8								
9								
10								

XFER	RELINQUISHED BY		TIME / DATE		ACCEPTED BY	
	John Warner		1300/10-12-17		AKT Storage	
	AKT Storage		1341/10-13-17		B. E. [Signature]	
3	[Signature]		1553/10-13-17		[Signature]	

Distribution: White - Lab Copy Yellow - Client Report Pink - Sampler

Appendix C

Resumes of Environmental Professionals

Sean D. Robinson

Leader of Field Services/Project Manager CHMM

Mr. Robinson has over 16 years of experience in environmental due diligence, assessment, environmental response activities, corrective action and regulatory compliance management. Mr. Robinson has conducted hundreds of investigations to evaluate the presence, nature and extent of environmental impact on soil, groundwater and air.

EDUCATION

BS: Biology, 1998 / Central Michigan University, Mt. Pleasant, MI

CERTIFICATIONS

ASTM International Risk-Based Corrective Action Training / October, 2003

OSHA 29 CFR 1910.120 / 40 and 8 Hour Refresher HAZWOPER training

Cardiopulmonary Resuscitation (CPR) and Standard First Aid Training Certification

Certified Hazardous Materials Manager (CHMM) / by the Institute of Certified Hazardous Materials Managers (CHMM #13024)

Certified Storm Water (Industrial and Construction Sites) / Management Operator by the Michigan Department of Environmental Quality (Certification # C-13162)

EXPERIENCE

Senior Environmental Consultant

AKT Peerless Environmental and Energy Services (current)

Environmental Field Technician

Peerless Environmental Services, Inc.

SKILLS

Site investigation activities associated with numerous leaking underground storage tank sites

Completion of Phase I Environmental Site Assessments to meet or exceed ASTM standards

SKILLS CONTINUED

Coordinate and conduct historical research, interviews, site reconnaissance, and technical writing

Direct Phase II Subsurface Investigations to completion

The completion of Baseline Environmental Assessments

Maintain direct client and regulatory agency contact

Responsible for job costing and budgeting

Interpretation of laboratory analytical results and technical report writing

Conducted groundwater and soil sampling

Design, install, operate, and maintain specialized remediation systems to address soil and groundwater contamination

Directed emergency response activates to mitigate potential environmental impacts

John Warner

Environmental Consultant

Mr. Warner is an Environmental Consultant, Focusing on ASTM Phase I & II Environmental Site Assessments, Operating the GeoProbe for subsurface investigations.

AREA OF EXPERTISE

- Hazardous Material Identification and Labeling
- Soil Sampling & Preservation
- Soil Gas Sampling & Preservation
- Water Sampling & Preservation
- Phase I & II Site ESAs
- GeoProbe Operator

CERTIFICATIONS

OSHA HAZWOPER 40 Hour Site Worker Course
(With annual refreshers)

EDUCATION

BS: Environmental Science and Planning, Honors, 2017

University of Michigan, Flint, Michigan

Chemical Process Operator Training

Delta College, Saginaw, Michigan

PROFESSIONAL EXPERIENCE

Wastewater Treatment Plant & Waste Burning
Incinerator Operator

Dow Chemical Company

Aviation Electronics Technician

United States Navy

SUMMARY OF SELECTED PROJECTS

Performed subsurface investigation of Leaking Underground Storage Tanks and Phase II Environmental Site Assessments for a variety of businesses in the Saginaw, Flint, and surrounding areas. Scope of work also included: Operating the GeoProbe, Handling of Hazardous Materials (including Soil and Water Sampling Activities), Subsurface soils and water were sent for analytical testing using Chain of Custody procedures, and subsurface condition were assessed prior to completing the reports.



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY – REMEDIATION DIVISION
PO BOX 30426, LANSING, MICHIGAN 48909-7926, Phone 517-373-9837, Fax 517-373-2637

FOR DEQ USE ONLY
BEA SUBMITTAL #

09000519-BEA-1

Baseline Environmental Assessment Submittal Form

This form is for submittal of a Baseline Environmental Assessment (BEA), as defined by the Environmental Remediation, Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Part 201 Rules promulgated thereunder, for the purpose of establishing an exemption to liability pursuant to Section 20126(1)(c) for a new owner or operator of property that is a facility as defined by Section 20101(1)(f). The BEA report must be conducted either prior to or within 45 days after becoming the owner or operator, whichever is earliest. This form and the BEA report must be submitted to the DEQ within 6 months of becoming the owner or operator whichever is earliest. A separate BEA is required for each legal entity that is or will be a new owner or operator of the property. To maintain the exemption to liability, the owner and operator must also disclose the BEA to any subsequent purchaser or transferee before conveying interest in the property pursuant to Section 20126(1)(c) and Rule 919. An owner or operator of a facility also has due care obligations under Section 20107a with respect to any existing contamination to prevent unacceptable exposure; prevent exacerbation; take reasonable precautions; provide reasonable cooperation, assistance, and access to authorized persons taking response activities at the property; comply with land and resource use restrictions associated with response activities; not impede the effectiveness or integrity of land and resource use restrictions implemented at the property, and comply with the Part 10 Rules. Documentation of due care evaluations and response activities needs to be available, but not submitted, to the DEQ within 8 months of becoming the owner or operator of a facility.

Submitter Information

Name of legal entity that will own or operate the property: Bay City Housing Commission Address: 315 14th Street City: Bay City State: MI Zip: 48708 Contact person (Name & Title): William Phillips Telephone: E-Mail: bill@baycityhousing.com	Contact for BEA questions if different from submitter Name & Title: Jenna MacDonald, Staff Scientist Company: PM Environmental Address: 4080 West 11 Mile City: Berkley State: MI Zip: 48072 Telephone: 248-206-1640 E-Mail: MacDonald@pmenv.com

Property Information

Street Address of Property: 108 Adams Street City: Bay City State: MI Zip: 48708 Property Tax ID (include all applicable IDs): 16009332-6 Address according to tax records, if different than above (include all applicable addresses): City: Zip: State: Status of submitter relative to the property (check all that apply): Former ☐ Current ☐ Prospective ☒ Owner ☐ Operator ☐	County: Bay City/Village/Township: Bay City Town: T.14N Range: R.05E Section: 28 Decimal Degrees Latitude: 43.5900 Decimal Degrees Longitude: -83.8874 Reference point for latitude and longitude: Center of site ☒ Main/front door ☐ Front gate/main entrance ☐ Other ☐ Collection method: Survey ☐ GPS ☒ Interpolation ☐

Section C: Source of contamination at the property (check all that are known to apply):

Facility regulated pursuant to Part 201, other source, or source unknown	☒
Part 201 Site ID, if known:	
Property - Leaking Underground Storage Tank regulated pursuant to Part 213	☐
Part 211/213 Facility ID, if known:	
Oil or gas production and development regulated pursuant to Part 615 or 625	☐
Licensed landfill regulated pursuant to Part 115	☐
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	☐

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SAGINAW BAY DISTRICT

Section D: Applicable Dates (provide date for all that are relevant):

Date All Appropriate Inquiry (AAI) Report or Phase I Environmental Assessment Report completed:	MM/DD/YYYY 06/16/2020
Date Baseline Environmental Assessment Report conducted:	08/13/2020
Date submitter first became the owner:	10/01/2020
Date submitter first became the operator:	
Date submitter first became the operator (if prior to ownership):	
Anticipated date of becoming the owner for prospective owners:	
Anticipated date of becoming the operator for prospective operators:	

WES
10/1/20

If former owner or operator of this property, prior dates of being the owner or operator:

Section E: Check the appropriate response to each of the following questions:

YES NO

1. Is the property at which the BEA was conducted a "facility" as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d)? ☒ ☐
2. Was the All Appropriate Inquiry (AAI) completed in accordance with Section 20101(1)(f) and or 21302(1)(b)? ☒ ☐
3. Was the BEA, including the sampling, conducted either prior to or within 45 days of the date of becoming the owner, operator, or of foreclosure, whichever is earliest? ☒ ☐
4. Is this BEA being submitted to the department within 6 months of the submitter first becoming the owner or operator, or foreclosing? ☒ ☐
5. Does the BEA provide sufficient rationale to demonstrate that the data is reliable and relevant to define conditions at the property at the time of purchase, occupancy, or foreclosure, even if the BEA relies on studies of data prepared by others or conducted for other purposes? ☒ ☐
6. Does this BEA contain the legal description of the property addressed by the BEA? ☒ ☐
7. Does this BEA contain the environmental analytical results, a scaled map showing the sample locations, and the basis for the determination that the property is a facility as defined by Section 20101(1)(s) or the basis for the determination that the property is a Property as defined by Section 21303(d)? ☒ ☐

Section F: Environmental Consultant Signature:

I certify to the best of my knowledge and belief, that this BEA and all related materials are true, accurate, and complete. I certify that the property is a facility as defined by Section 20101(1)(s) or a Property as defined by Section 21303(d) and have provided the sampling and analyses that support that determination. I certify that any exceptions to, or deletions from, the All Appropriate Inquiry Rule are described in Section 1 of the BEA report.

Signature: Jenna MacDonald

Date: 10/01/2020

Printed Name: Jenna MacDonald

Company: PM Environmental

Mailing Address: 4080 West 11 Mile City: Berkley State: MI Zip: 48072

Telephone: (248) 206-1640 E-Mail: MacDonald@pmenv.com

Section G: Legal Entity Signature:

With my signature below, I certify that to the best of my knowledge and belief, this BEA and all related materials are true, accurate, and complete.

Signature: [Signature]

Date: 10/1/20

(Person legally authorized to bind the legal entity)

Printed Name: William E. Phillips, CEO

Title and Relationship of signatory to submitter

Address: 315 West 11 Mile City

State: MI

Zip: 48072

Telephone: 989 992 9551

E-Mail: Bill@Berkley.com

Submit the BEA report and this form to the MDEQ District Office for the county in which the property is located. An office map is located at www.michigan.gov/deqrrd.



Environmental & Engineering Services Nationwide



ENVIRONMENTAL SERVICES

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INCENTIVES CONSULTING

BASELINE ENVIRONMENTAL ASSESSMENT

Bay City Market Property
108 Adams Street | Bay City, Michigan
PM Project Number 01-12077-1-0003

Prepared for:

Bay City Housing Commission
315 14th Street
Bay City, Michigan 48708

Prepared by:

PM Environmental, Inc.
401 Center Avenue, Suite 9
Bay City, Michigan 48708

RECEIVED

OCT 14 2020

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Know Your Risk.
Take Control.
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Corporate Headquarters
Lansing, Michigan
3340 Ranger Road, Lansing, MI 48906
f: 877.884.6775
t: 517.321.3331

Michigan Locations
Bay City
Chesterfield
Lansing
Berkley
Grand Rapids
Oak Park

August 13, 2020

District Supervisor
Michigan Department of Environment, Great Lakes, and Energy
Bay City District Office
401 Ketchum Street, Suite B
Bay City, Michigan 48708

RE: Baseline Environmental Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
Parcel ID: 09-160-028-178-001-00
PM Environmental, Inc. Project No. 01-12077-1-0003

Dear District Supervisor:

Enclosed is a copy of the Baseline Environmental Assessment prepared for the above referenced subject property in accordance with Section 20126(1)(c) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

If you have any questions regarding the information in this report, please contact us at 800-313-2966.

Sincerely,
PM ENVIRONMENTAL, INC.

Jenna MacDonald
Staff Scientist

Jennifer Ritchie, CPG
National Site Investigation Services Manager

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FIGURES

- Figure 1: Property Vicinity Map
Figure 2: Generalized Diagram of the Subject Property and Adjoining Properties
Figure 3: Soil Boring/Soil Gas Sample Location Map with Soil Analytical Results
Figure 4: Soil Boring/Soil Gas Sample Location Map with Soil Gas Analytical Results

TABLES

- Table 1: Summary of Soil Analytical Results: VOCs, PNAs, PCBs, and Michigan 10 Metals
Table 2: Summary of Soil Gas Analytical Results: VOCs

APPENDICES

- Appendix A: Phase I ESA, June 16, 2020, PM
Appendix B: Soil Boring/Soil Gas Logs
Appendix C: Laboratory Analytical Reports
Appendix D: Assessing Information
Appendix E: Professional Qualification Statements

1.0 INTRODUCTION AND DISCUSSION

PM Environmental, Inc. (PM) completed a Baseline Environmental Assessment (BEA) of the Bay City Market Property (Parcel ID: 09-160-028-178-001-00) located at 108 Adams Street, Bay City, Bay County, Michigan 48708 (hereafter referred to as the "subject property"; Figure 1) in accordance with Section 20126(1)(c) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

The subject property consists of one parcel of land totaling approximately 1.57 acres and is located on the east side of Adams Street, north side of Columbus Avenue, south side of 11th Street, and west side of North Jefferson Street in Bay City, Michigan (Figure 1). The subject property consist of four buildings, including one single-story restaurant containing 1,823 square feet located on the eastern portion, one open-air market space containing 35,000 square feet located on the western portion, one warming shed containing approximately 450 square feet located on the northern portion on the southeastern portion, and one storage shed containing approximately 100 square feet located on the southeastern portion. The remainder of the subject property consists of asphalt pavement (Figure 2).

Standard and other historical sources were able to document a former light and power plant building with at least 20 transformers was constructed in the northeastern portion in 1886. The southeastern, southwestern, and central-western portions of the subject property were developed with residential dwellings and associated outbuildings prior to 1912. Two lumber sheds were present in the central-western portion and a "wood office" was present in the northwestern portion in at least 1912. All of the buildings were demolished by 1925, when a portion of the current open air market structure was constructed. The remainder was constructed by 1950. The open air market building has operated as a market and temporary ice rink since construction.

The current restaurant building was constructed in 1937 and was a restaurant from construction until April 2020 and has been vacant of occupants since that time. Scales were present west of the restaurant building from at least 1950 until at least 1967, and were removed at an unknown time.

The current warming shed was constructed between 1970 and 1973 and has been utilized for storage since construction, and formerly as a warming shed via a wood burning stove associated with the temporary ice rink. The current outbuilding was constructed between 2009 and 2012 and has been used for general storage since construction.

1.1 Owner/Operator Information

Bay City Housing Commission, having an office located at 315 14th Street, Bay City, Michigan 48708, intends to purchase the subject property on September 3, 2020.

1.2 Intended Use of the Subject Property

Bay City Housing Commission intends to redevelop the property into residential townhomes at a later date.

The subject property is currently zoned C-2-A: General Business, which is consistent with a Nonresidential property use in accordance with Part 201. However, the proposed redevelopment

of residential townhomes is consistent with a Residential property use in accordance with Part 201.

The subject property is currently connected to municipal water, sanitary sewer, natural gas, electrical, and telecommunications utilities are available. No water wells are currently present on the subject property.

1.3 Summary of All Appropriate Inquiry Phase I Environmental Assessment

PM completed a Phase I ESA for the subject property dated June 16, 2020, in conformance with the scope and limitations of ASTM Practice E 1527-13 (i.e., the 'ASTM Standard'). The following onsite RECs were identified for the subject property:

- The northeastern portion was occupied by a transformer substation with at least 20 transformers from at least 1886 until 1925. Transformer substations can contain PCB-containing transformers and other equipment containing general hazardous substances and/or petroleum products. The potential exists that a spill and/or leak has occurred on the property and negatively impacted the subsurface.
- The subject property formerly contained five residential dwellings, which were demolished between 1912 and 1925. It is PM's experience that a common practice, was to demolish the building into the basement and leave all building materials present. Building materials associated with the former buildings may have been pushed into the basement during and/or after demolition and utilized as fill material. Backfill materials were likely removed from the southern portion of the parcel when the apartment building was constructed. Additionally, review of a subsurface investigation completed on the east adjoining property (111 North Madison Avenue) in 2017 documents metal contamination in soil above applicable criteria, which is likely the result of contaminated backfill materials. The potential exists for construction debris and contaminated fill material to be present on the subject property associated with the former dwellings.

The following adjoining and/or nearby REC was identified:

- A former building on the east adjoining property, identified as 409 Columbus Avenue, was utilized for dry cleaning operations from at least 1946 until at least 1962. Dry cleaning operations commonly involve the usage of general hazardous substances and/or petroleum products, which, if improperly managed and/or disposed of, can be a source of contamination. The former building was located approximately 20 feet east of the subject property. Based on the close proximity to the subject property, inferred groundwater flow to the west (toward the subject property), and long-term duration of potential dry cleaning operations (at least 18 years, and potentially 27 years), the potential exists a release has occurred and migrated onto the subject property.

1.3.1 Phase I ESA Exceptions or Deletions

There were no exceptions or deletions from the Federal All Appropriate Inquiry Rule under 40 CFR 312, or the ASTM Standard during the completion of the June 2020 Phase I ESA and no special terms or conditions applied to the preparation of the Phase I ESA.

1.3.2 Phase I ESA Data Gaps

PM did not identify any significant data gaps during the completion of the June 2020 Phase I ESA.

1.4 Summary of Previous Site Investigations

No previous site investigations were identified by PM for the subject property. Previous reports may exist for the subject property, however, none were provided to PM by the client or owner of the property, and none were available with the appropriate state regulatory agencies.

1.5 Summary of Current Site Investigation

Prior to the commencement of field activities, MissDig, a utility locating service, was contacted to locate utilities on or adjacent to the subject property. Utilities were marked by the respective utility companies where they entered or were located adjacent to the subject property.

On July 6, 2020, PM completed subsurface investigation activities at the subject property that consisted of advancing eight soil borings (SB-1 through SB-8), installing one temporary in-boring soil gas sampling point, and collecting 13 soil samples and one soil gas sample for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), polychlorinated biphenyls (PCBs), and Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), or some combination thereof.

The soil boring and soil gas sample locations are depicted on Figures 3 and 4.

The table below summarizes PM's July 2020 site investigation activities:

Description of the Soil Boring/Soil Gas Sample Locations

Location (feet bgs)	Sample Depth (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-1 (20.0)	Soil: 1.0-2.0	VOCs, PNAs, PCBs, and metals	Assess the former transformer substation	Soil: Based on the lack of field evidence of impact, a sample was collected from a shallow depth beneath the concrete. Groundwater: Not encountered.
SB-2 (20.0)	Soil: 1.0-2.0, 6.0-7.0, and 16.5-17.5	VOCs, PNAs, PCBs, and metals	Assess the former transformer substation	Soil: Based on the lack of field evidence of impact samples were collected from the shallow sand/sandy clay interface, the middle of the boring, and the sandy clay/clay interface below. Groundwater: Not encountered.
SB-3 (20.0)	Soil: 1.0-2.0 and 6.5-7.5	VOCs, PNAs, PCBs, and metals	Assess the potential fill material in the former dwelling	Soil: Based on the lack of field evidence of impact, samples were collected from the shallow sand/sandy clay interface and deeper for vertical delineation. Groundwater: Not encountered.

Location (feet bgs)	Sample Depth (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB-4 (20.0)	Soil: 1.0-2.0	VOCs, PNAs, PCBs, and metals	Assess the potential fill material in the former dwelling	Soil: A sample was collected from the clayey sand/sandy clay interface where construction debris was identified. Groundwater: Not encountered.
SB-5 (20.0)	Soil: 4.5-5.5	VOCs, PNAs, PCBs, and metals	Assess the potential fill material in the former dwellings	Soil: A sample was collected from the clayey sand/sandy clay interface where construction debris was identified. Groundwater: Not encountered.
SB-6 (20.0)	Soil: 1.0-2.0 and 8.5-9.5	VOCs, PNAs, PCBs, and metals	Assess the potential fill material in the former dwelling	Soil: Samples were collected from the interval with the highest observed PID reading (1.6 ppm) and the sandy clay/clay interface below. Groundwater: Not encountered.
SB-7 (20.0)	Soil: 4.0-5.0 and 12.5-13.5	VOCs and PNAs	Assess the potential fill material in the former dwelling	Soil: Based on the lack of field evidence of impact, samples were collected from below the concrete and the sandy clay/clay interface below. Groundwater: Not encountered.
SB-8/SG-1 (20.0)	Soil: 10.5-11.5	VOCs and PNAs	Assess the potential for contaminant migration from the east adjoining former dry cleaner property	Soil: Based on the lack of field evidence of impact, a sample was collected from below utilities depths. Groundwater: Not encountered. Soil Gas: Collected below building footing depths.
	Soil Gas: 4.5-5.5 [5.0]	VOCs		

bgs – below ground surface
ppm – parts per million

PID – photoionization detector

1.6 Subsurface Investigation Techniques and QA/QC Procedures

The soil borings were advanced to the desired depth using a Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and/or groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a 5-foot long macro-core sampler.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alconox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities.

Soil collected from 1-foot sample intervals was screened using a photoionization detector (PID) to determine if VOCs were present. Soil from specific depths was placed in plastic bags and allowed to volatilize. The headspace within each bag was then monitored with the PID, which is able to detect trace levels of organic compounds in the air space within the plastic bag. Soil

samples were collected from the soil borings based upon the highest PID reading, visual/olfactory evidence, a change in geology, and/or source depth. Soil samples for VOC analysis were preserved with methanol in accordance with United States Environmental Protection Agency (USEPA) Method 5035 modified.

The soil samples were placed in appropriately labeled containers with Teflon® lined lids and/or sanitized glass jars, then placed in an ice-packed cooler and transported under chain of custody procedures for laboratory analysis within applicable holding times to Merit Laboratories, Inc. (Merit) in East Lansing, Michigan.

The soil gas sampling was completed based on the guidelines established by the American Society for Testing and Materials (ASTM) in the Standard Practice for Vapor Encroachment Screening on Property Involved in Real Estate Transactions Designation E 2600-10 (ASTM Standard Practice E 2600-10) and May 2013 MDEQ Guidance Document for the Vapor Intrusion Pathway, which included the quality assurance/quality control (QA/QC) procedures outlined below.

Prior to the collection of the soil gas sample, the sampling apparatus was determined to be leak free utilizing an isolation chamber which encompassed tubing and associated connections as well as the sampling point. The chamber was charged with helium prior to purging the sampling point of a maximum of three volumes. A helium detector was then applied to the sampling line to ensure no leaks had occurred. The sample was collected using vacuum canister methods, for laboratory analysis of VOCs. The vacuum canisters were regulated with a flow controller pre-set by the laboratory for a flow rate of 200 milliliters per minute.

The soil gas sample was placed in appropriately labeled canisters and transported under chain of custody procedures for laboratory analysis within applicable holding times to Merit.

Upon completion of the investigation, the soil gas sampling materials were removed and the soil borings were abandoned by placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

1.7 Geology and Hydrogeology

Based on a review of the soil boring logs, the soil stratigraphy of the subject property generally consists of sand or clayey sand to depths between 1.5 and 5.0 feet bgs, followed by sandy clay to depths between 13.5 and 18.0 feet bgs and underlain by clay to a depth of at least 20.0 feet bgs, the maximum depth explored.

Groundwater was not encountered on the subject property to a maximum depth of 20.0 feet bgs.

The soil boring/soil gas logs are included in Appendix C, which summarize site-specific geology/hydrogeology, soil gas sampling point diagram, sample depths, and PID readings.

2.0 LOCATION OF CONTAMINATED MEDIA ON THE SUBJECT PROPERTY

PM compared the analytical results of the soil samples collected from the subject property with the Michigan Department of Environmental Quality (MDEQ) (currently known as the Michigan Department of the Environment, Great Lakes, and Energy [EGLE]) Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30,

2013 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria.

The analytical results for the soil and soil gas samples were compared with the EGLE Proposed Volatilization to Indoor Air Inhalation Pathway (VIAP) screening levels (Draft VIAP screening levels; May 14, 2020). Although not an enforceable standard or may not be a standard by which documentation of due care compliance may be demonstrated, the available Draft VIAP screening levels are consistent with EGLE-provided site-specific values and are a means to discuss risk and potential due care requirements for a property prior to developing and/or obtaining site specific values, when applicable.

The soil and soil gas analytical results are summarized on Figures 3 and 4 and in Tables 1 and 2. The laboratory analytical reports are included in Appendix D.

2.1 Soil Analytical Results

No concentrations of VOCs were detected in any of the soil samples analyzed from the subject property above the laboratory method detection limits (MDLs).

A concentration of phenanthrene was detected in soil sample SB-5 (4.5-5.5 feet bgs) above the Part 201 Groundwater Surface Water Interface protection (GSIP) cleanup criteria and Draft Residential VIAP screening levels. Concentrations of other PNAs were detected in soil sample SB-5 (4.5-5.5 feet bgs) above the laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. No concentrations of PNAs were detected in any of the remaining soil samples analyzed from the subject property above the laboratory MDLs.

No concentrations of PCBs were detected in any of the soil samples analyzed from the subject property above the laboratory MDLs.

A concentration of total mercury was detected in soil sample SB-5 (4.5-5.5 feet bgs) above the Part 201 Residential and Nonresidential Drinking Water Protection (DWP) and GSIP cleanup criteria and Draft Residential and Nonresidential VIAP screening levels. Concentrations of selenium were detected in soil samples (SB-2 (1.0-2.0 feet bgs), SB-2 (6.0-7.0 feet bgs), SB-3 (6.5-7.5 feet bgs), SB-4 (1.0-2.0 feet bgs), SB-5 (4.5-5.5 feet bgs), SB-6 (1.0-2.0 feet bgs), and SB-6 (8.5-9.5 feet bgs)) above the Part 201 GSIP cleanup criteria. No concentrations of other metals (arsenic, barium, cadmium, chromium, copper, lead, silver, and zinc) were detected in any of the soil samples analyzed from the subject property above the laboratory MDLs, the Statewide Default Background Levels (SDBLs), and/or the most restrictive Part 201 Residential cleanup criteria.

2.2 Soil Gas Analytical Results

No concentrations of VOCs were detected in the soil gas sample analyzed from the subject property above the laboratory MDLs and/or the most restrictive Draft Residential VIAP screening levels.

2.3 Subject Property Facility Status

Concentrations of target analytes were identified in the soil samples analyzed from the subject property above the Part 201 Residential and Nonresidential DWP and GSIP cleanup criteria.

Based on the identified exceedances of the Part 201 cleanup criteria, the subject property meets the definition of a "facility" in accordance with Part 201 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

3.0 PROPERTY INFORMATION

3.1 Legal Description of Subject Property

As indicated in Section 1.0, the subject property consists of one parcel of land totaling 1.57 acres. Copies of available assessment records and the current legal description for the subject property are included in Appendix D.

3.2 Map of Subject Property

Figure 1, Property Location Map, and Figure 2, Generalized Diagram of the Subject Property and Surrounding Area depicts the property/parcel boundaries.

3.3 Subject Location and Analytical Summary Maps

Figures 3 and 4 provide a scaled map of the subject property with site features and sampling locations with analytical results.

3.4 Subject Property Location Map

Figure 1 provides a scaled area map depicting the subject property location in relation to the surrounding area, and Figure 2 provides a scaled map of the subject property with site features.

3.5 Subject Property Address

As indicated in Section 1.0, the subject property consists of one parcel of land (Parcel ID: 16009332-6) and is located at 108 Adams Street, Bay City, Bay County, Michigan 48708 (Figure 1).

3.6 Subject Spatial Data

As depicted in Figure 1, the subject property is located in township 14 North (T.14N), range 05 East (R.05E), and section 28 in Bay City, Bay County, Michigan.

According to the MDEQ GeoWebFace website, the center of the subject property is located at latitude 43.5900 and a longitude of -83.8874.

4.0 FACILITY STATUS OF SUBJECT PROPERTY

As indicated in Section 2.3 based upon documented soil exceedances of the Part 201 Residential and Nonresidential DWP and GSIP cleanup criteria, the subject property is a "facility", in accordance with Part 201 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

4.1 Summary Data Tables

PM compared the analytical results of the soil samples collected from the subject property with the Michigan Department of Environmental Quality (MDEQ) (currently known as the Michigan

Department of the Environment, Great Lakes, and Energy [EGLE]) Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria.

The analytical results for the soil and soil gas samples were compared with the EGLE Proposed Volatilization to Indoor Air Inhalation Pathway (VIAP) screening levels (Draft VIAP screening levels; May 14, 2020). Although not an enforceable standard or may not be a standard by which documentation of due care compliance may be demonstrated, the available Draft VIAP screening levels are consistent with EGLE-provided site-specific values and are a means to discuss risk and potential due care requirements for a property prior to developing and/or obtaining site specific values, when applicable.

The soil and soil gas analytical results for compounds exceeding Part 201 cleanup criteria are summarized in Section 2.0. A summary of the soil and soil gas analytical results are included in Tables 1 and 2.

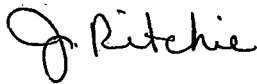
4.2 Laboratory Reports and Chain of Custody Documentation

Samples collected by PM were submitted to Merit Laboratories, Inc. in East Lansing, Michigan for chemical analysis under chain of custody procedures and within applicable holding times. The laboratory analytical reports including chain of custody documentation are included in Appendix D.

5.0 IDENTIFICATION OF BEA AUTHOR

This BEA was conducted on August 13, 2020, by Ms. Jenna MacDonald, Staff Scientist, and reviewed by Ms. Jennifer L. Ritchie, C.P.G., National Site Investigation Services Manager, PM Environmental, Inc., which is prior to or within 45 days of becoming the property owner or operator. Qualification statements are provided as Appendix E.

I declare that, to the best of our professional knowledge and belief, I meet the definition of Environmental Professionals as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Jennifer Ritchie, CPG
National Site Investigation Services Manager

6.0 AAI REPORT OR ASTM PHASE I ESA

As indicated in Section 1.3, PM completed a Phase I ESA dated June 16, 2020, in conformance with the scope and limitations of ASTM Practice E 1527-13, for the subject property (Parcel ID: 09-160-028-178-001-00) located at 108 Adams Street, Bay City, Bay County, Michigan 48708. The scope of the Phase I ESA included consideration of hazardous substances as defined in Section 20126(1)(c) of Part 201 of the Natural Resources and Environmental Protection Act

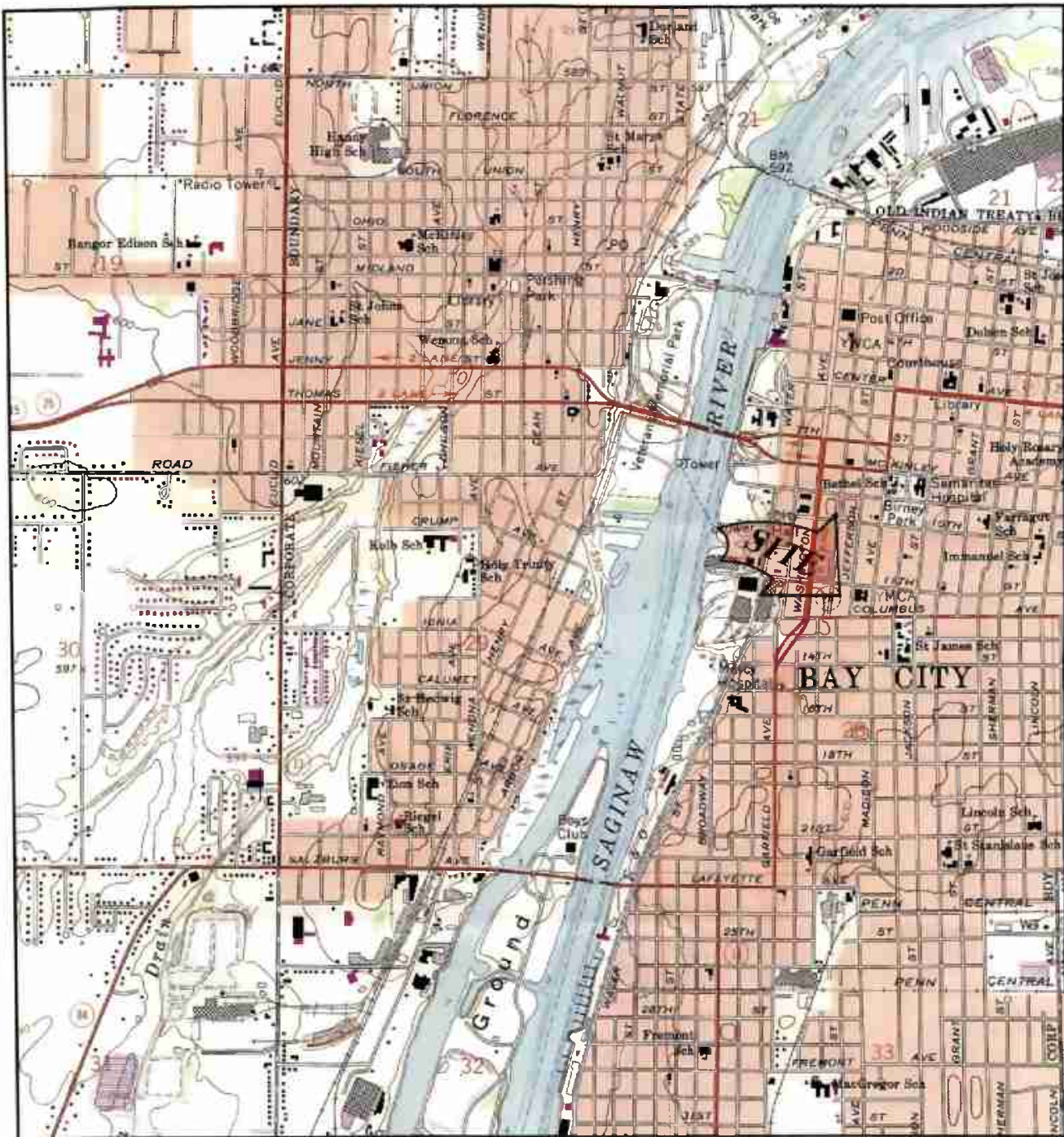
(NREPA), P.A. 451 of 1994, as amended, and constituted the performance of an All Appropriate Inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

A copy of the June 2020 Phase I ESA is included in Appendix A.

7.0 REFERENCES

- Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM, ASTM Designation E 1527-13, Published November 2013;
- Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013;
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled "Cleanup Criteria Requirements for Response Activity";
- EGLE Operational Memorandum No. 2 "Sampling and Analysis," October 22, 2004, Revised July 5, 2007;
- Draft EGLE Volatilization to Indoor Air Pathway Screening Levels (VIAP; May 2020);
- Baseline Environmental Submittal Form (EQP 4025), July 2017; and
- Phase I ESA, June 16, 2020, PM.

Figures



BAY COUNTY

FIGURE 1

PROPERTY VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

BAY CITY, MI QUADRANGLE, 1967. PHOTO REVISED 1973.



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PROJ:
BAY CITY MARKET PROPERTY
108 ADAMS STREET
BAY CITY, MI

THIS IS NOT A LEGAL
SURVEY

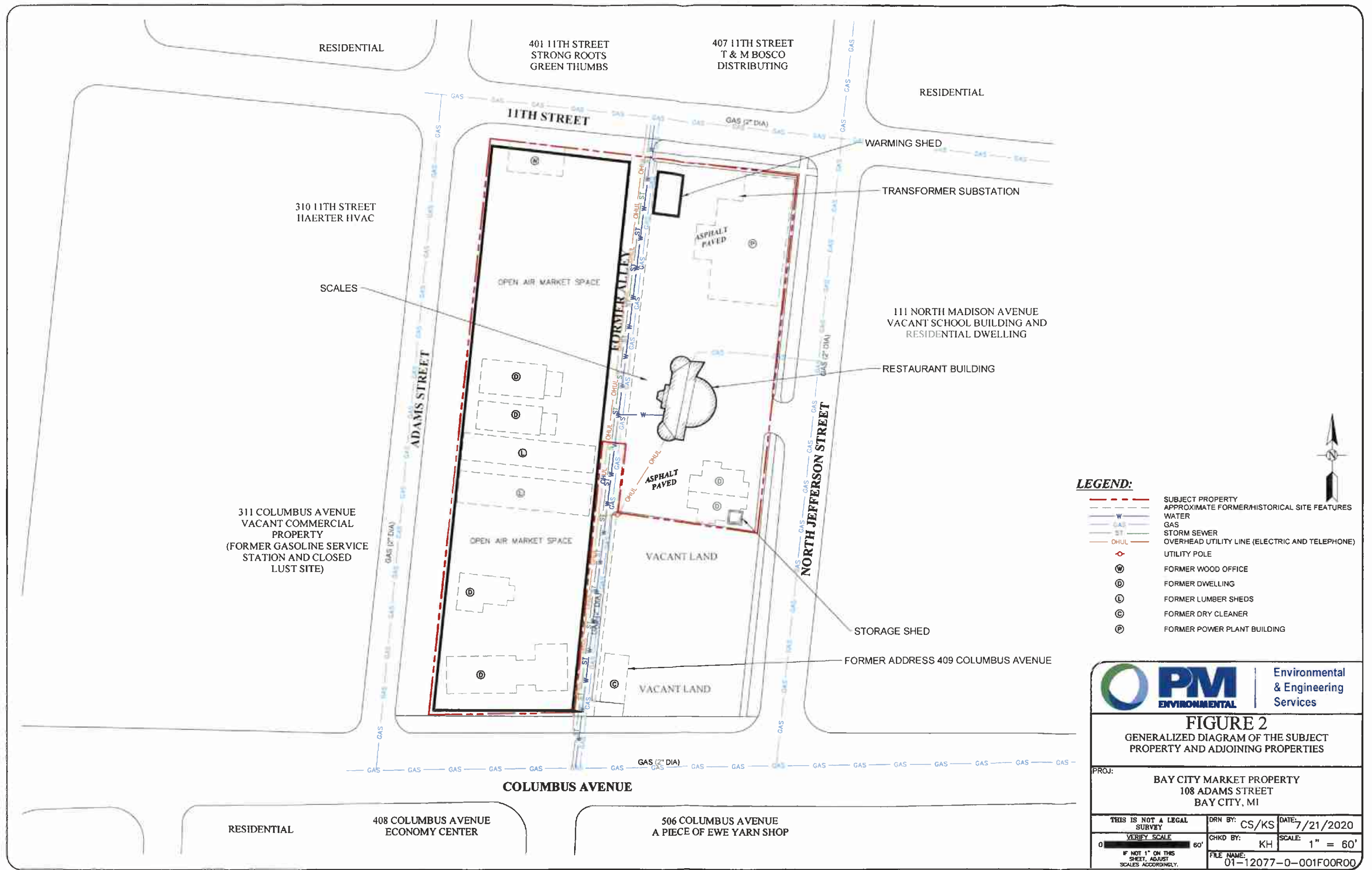
VERIFY SCALE 2,000'

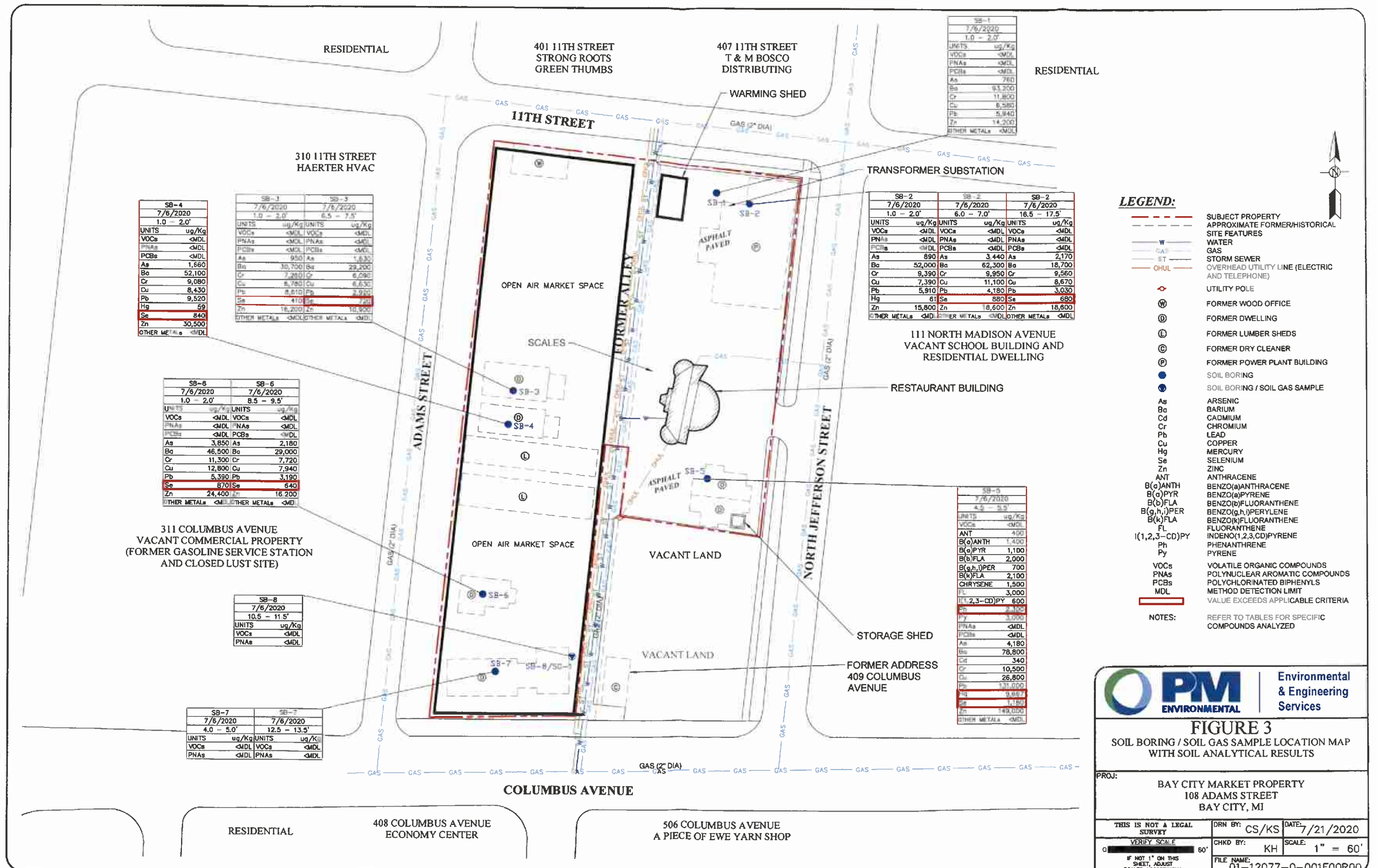
IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY.

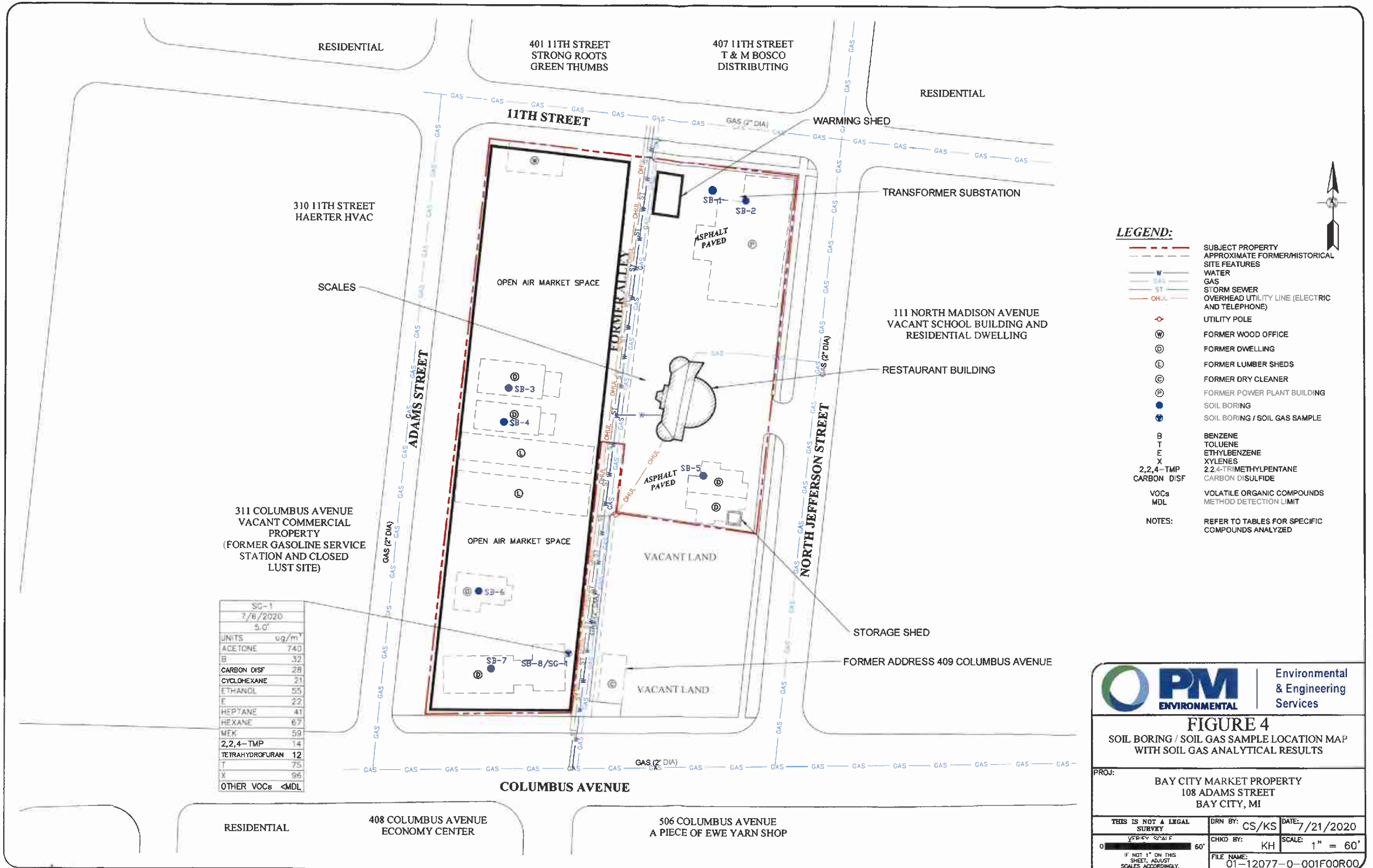
DRN BY: CS DATE: 6/2/2020

CHKD BY: KH SCALE: 1" = 2,000'

FILE NAME: 01-12077-0-001F00R00









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FIGURE 4
SOIL BORING / SOIL GAS SAMPLE LOCATION MAP
WITH SOIL GAS ANALYTICAL RESULTS

PROJ: BAY CITY MARKET PROPERTY
108 ADAMS STREET
BAY CITY, MI

THIS IS NOT A LEGAL
SURVEY

DRN BY: CS/KS DATE: 7/21/2020

CHKD BY: KH SCALE: 1" = 60'

FILE NAME: 01-12077-0-001F00R00

0 60'
IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY.



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Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOCs, PNA's, PCBs, AND MICHIGAN 10 METALS
108 ADAMS STREET, BAY CITY, MICHIGAN
PM PROJECT #01-12077-0-0003

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), Polychlorinated Biphenyls (PCBs), and Michigan 10 Metals (µg/Kg)	VOCs	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Other PNAs	PCBs	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc			
Chemical Abstract Service Number (CAS#)	Various	120127	56553	50328	205992	191242	207089	218019	206440	193395	85018	129000	Various	1336363	7440382	7440393	7440439	16065831	7440508	7439921	7439976	7782492	7440224	7440666			
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs	PNAs										PCBs	Michigan 10 Metals												
SB-1	07/06/2020	1.0-2.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	760	93,200	<200	11,800	6,580	5,940	<50	<400	<200	14,200		
SB-2	07/06/2020	1.0-2.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	890	52,000	<200	9,390	7,390	5,910	61	<400	<200	15,800		
SB-2	07/06/2020	6.0-7.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	3,440	62,300	<200	9,950	11,100	4,180	<50	880	<200	18,600		
SB-2	07/06/2020	16.5-17.5	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	2,170	18,700	<200	9,560	8,670	3,030	<50	680	<200	16,600		
SB-3	07/06/2020	1.0-2.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	950	30,700	<200	7,260	6,780	8,610	<50	410	<200	16,200		
SB-3	07/06/2020	6.5-7.5	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	1,630	29,200	<200	6,090	6,630	2,920	<50	720	<200	10,900		
SB-4	07/06/2020	1.0-2.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	1,660	52,100	<200	9,080	8,430	9,520	59	840	<200	30,500		
SB-5	07/06/2020	4.5-5.5	<MDL	400	1,400	1,100	2,000	700	2,100	1,500	3,000	600	2,300	3,000	<MDL	<330	4,180	78,800	340	10,500	26,800	131,000	9,667	1,180	<200	149,000	
SB-5 (Replicate 1)	07/06/2020	4.5-5.5	NA	400	1,100	800	1,400	500	1,500	1,300	2,300	400	2,000	2,200	<MDL	NA	2,480	75,900	450	7,900	31,400	185,000	3,143	740	280	152,000	
SB-5 (Replicate 2)	07/06/2020	4.5-5.5	NA	<300	<300	<300	300	<300	300	<300	400	<300	300	400	<MDL	NA	1,580	60,600	230	6,190	21,900	81,700	3,130	<400	<200	104,000	
SB-6	07/06/2020	1.0-2.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	3,850	46,500	<200	11,300	12,800	5,390	<50	870	<200	24,400		
SB-6	07/06/2020	8.5-9.5	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	<330	2,180	29,000	<200	7,720	7,840	3,190	<50	640	<200	16,200		
SB-7	07/06/2020	4.0-5.0	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SB-7	07/06/2020	12.5-13.5	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SB-8	07/06/2020	10.5-11.5	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<MDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 Draft EGLE Volatilization to Indoor Air Pathway Screening Levels																											
Residential (µg/Kg)																											
Statewide Default Background Levels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,800	15,000	1,300	18,000	5,800	21,000	130	410	1,000	47,000		
Drinking Water Protection (Res DWP)	Various	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	56,000	4.80E+05	Various	NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	4,000	4,500	2.40E+06		
Groundwater Surface Water Interface Protection (GSIP)	Various	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	NLL	2,100	ID	Various	NLL	4,800	2.0E+05(D)	3.6E+05(D,X)	3,300	1.7E+06(D)	5.3E+07(D,X)	50 (M), 1.2	400	100 (M), 27	3.0E+05(D)		
Soil Volatilization to Indoor Air Inhalation (Res SVII)	Various	1.0E+9 (D)	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 (D)	NLV	2.8E+06	1.0E+9 (D)	Various	1.2E+03	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	Various	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.40E+06	NLV	1.80E+05	6.5E+06	Various	2.40E+05	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	Various	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+06	NLV	1.80E+05	6.5E+06	Various	7.9E+06	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	Various	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+06	NLV	1.80E+05	6.5E+06	Various	7.9E+06	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Res PSI)	Various	6.7E+10	ID	1.5E+06	ID	8.0E+06	ID	ID	ID	9.3E+06	ID	6.7E+06	6.7E+09	Various	5.2E+06	7.20E+05	3.30E+06	1.70E+06	2.60E+05	1.30E+06	1.00E+06	2.00E+07	1.30E+06	6.70E+06	ID		
Direct Contact (Res DC)	Various	2.3E+06	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	4.6E+07	20,000	1.6E+06	2.9E+07	Various	(T)	7,600	3.70E+07	5.50E+05	2.50E+06	2.80E+07	4.00E+05	1.60E+05	2.80E+06	2.50E+06	1.70E+06			
Nonresidential (µg/Kg)																											
Drinking Water Protection (Nonres DWP)	Various	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	1.60E+05	4.80E+05	Various	NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	4,000	4,500	5.00E+06		
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	Various	1.0E+9 (D)	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 (D)	NLV	5.1E+06	1.0E+9 (D)	Various	1.6E+07	NLV	NLV	NLV	NLV	NLV	NLV	88,000	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	Various	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+06	NLV	1.80E+05	7.8E+06	Various	6.10E+05	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	Various	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+06	NLV	1.80E+05	7.8E+06	Various	2.8E+07	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	Various	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+06	NLV	1.80E+05	7.8E+06	Various	2.8E+07	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Nonres PSI)	Various	2.9E+10	ID	1.9E+06	ID	3.5E+06	ID	ID	ID	4.1E+09	ID	2.9E+06	2.9E+09	Various	6.5E+06	9.10E+05	1.50E+06	2.20E+06	2.40E+05	5.80E+07	4.40E+07	8.80E+06	5.90E+07	2.90E+06	ID		
Direct Contact (Nonres DC)	Various	7.3E+06	80,000	8,000	80,000	7.0E+06	6.00E+05	8.0E+06	1.3E+06	80,000	5.2E+06	8.4E+07	Various	(T)	37,000	1.30E+06	2.10E+06	9.20E+06	7.30E+07	9.0E+5 (DC)	5.80E+05	9.80E+06	8.00E+06	6.30E+06			
Screening Levels (µg/Kg)																											
Soil Saturation Concentration Screening Levels (Csat)	Various	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Various	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)	Various	1.3E+07	1.6E+05 (MM)	NA	NA	NA	NA	NA	NA	NA	NA	1.7E+03	2.5E+07	Various	ID	NA	NA	NA	NA	NA	NA	22	NA	NA	NA		
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)	Various	2.2E+06	1.1E+07	NA	NA	NA	NA	NA	NA	NA	NA	2.9E+04	4.4E+08	Various	ID	NA	NA	NA	NA	NA	NA	280	NA	NA	NA		

- Applicable Criterion/RBSL Exceeded
- BOLD

Value Exceeds Applicable Criterion/RBSL
- Value Exceeds Applicable Screening Level
- underline

Applicable Screening Level Exceeded
- bgs
- Below Ground Surface (feet)

µg/Kg

100 (M)

NA

NL

NLL

NLV

ID

TABLE 2
SUMMARY OF SOIL GAS ANALYTICAL RESULTS
VOCs
108 ADAMS STREET, BAY CITY, MICHIGAN
PM PROJECT #01-12077-1-0003

Volatile Organic Compounds (VOCs) (µg/m³)			Acetone	Benzene	Carbon disulfide	Cyclohexane	Ethanol	Ethylbenzene	Heptane	Hexane	Methyl ethyl ketone	2,2,4-Trimethylpentane	Tetrahydrofuran	Toluene	Xylenes (total)	Other VOCs
Chemical Abstract Service Number (CAS#)			67641	71432	75150	110827	64175	100414	142825	110543	78933	540841	109999	108883	1330207	Various
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs													
SG-1	07/06/2020	5.0	740	32	28	21	55	22	41	67	59	14	12	75	96	<MDL
Draft EGLE Volatilization to Indoor Air Pathway Screening Levels																
MDEQ Residential Volatilization to Indoor Air Interim Action Screening Levels (August 2017) (µg/m³)																
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)			1.0E+06 (EE)	110	24,000	210,000	6.3E+05 (EE)	340	120,000	24,000	NL	ID	70,000	170,000	7,600 (J)	Various
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)			1.0E+06 (EE)	260	36,000	310,000	6.3E+05 (EE)	800	180,000	36,000	NL	ID	100,000	2.5E+05 (EE)	11,000 (J)	Various

Screening Level Exceeded

BOLD

Value Exceeds Applicable Screening Level

<MDL

Not detected at or above laboratory reporting or detection limits

NA

Not Available/Not Applicable

bgs

Below Ground Surface

NL

Not Listed

µg/m³

micrograms per cubic meter

Appendix A





Environmental & Engineering Services Nationwide



ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE,
ENGINEERING & SCIENCE

INDUSTRIAL HYGIENE SERVICES

BROWNFIELDS & ECONOMIC
INCENTIVES CONSULTING

MSHDA PHASE I ENVIRONMENTAL SITE ASSESSMENT

Bay City Market Property

108 Adams Street | Bay City, Michigan
PM Project Number 01-12077-0-0001

Prepared for:

Bay City Housing Commission

315 14th Street
Bay City, Michigan 48708

Prepared by:

PM Environmental, Inc.

401 Center Avenue, Suite 9
Bay City, Michigan 48708

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Michigan Locations
Berkley Bay City
Grand Rapids Chesterfield
Lansing Oak Park

June 16, 2020

Mr. William Phillips
Bay City Housing Commission
315 14th Street
Bay City, Michigan 48708

**Re: Phase I Environmental Site Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
PM Environmental, Inc. Project No. 01-12077-0-0001**

Dear Mr. Phillips:

Please find enclosed the Phase I Environmental Site Assessment for the subject property dated June 16, 2020 to the Michigan State Housing Development Authority.

It is our understanding that the information contained in the Phase I Environmental Site Assessment will be used by the Authority in considering proposed financing of residential development of the property and, furthermore, that the Authority may rely upon the Phase I Environmental Site Assessment as if it were issued to the Authority.

We **represent** that the attached is a true, correct, and complete copy of the Phase I Environmental Site Assessment for the above captioned property and that the report represents our professional opinion of the site as of this date and that we meet the definition of an Environmental Professional as defined in Section 312.10 of 40 CFR 312. We also **represent** that the Phase I Environmental Site Assessment including the evaluation, recommendations, and conclusions as of this date has been performed in conformance with the scope and limitations of the ASTM Practice E1527-13, ASTM Practice E 2600-15, and MSHDA's Environmental Review Requirements for 2020.

If you have any questions related to this report please do not hesitate to contact our office at 800.313.2966.

Sincerely,
PM ENVIRONMENTAL, INC.
PM Environmental, Inc.

PM Environmental, Inc.

Jackie Schafer
Regional Manager – Due Diligence

Peter S. Bosanic, P.E., EP
Principal

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Located at 108 Adams Street, Bay City, Michigan
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- Section 10.9: MSHDA Phase I Letter of Reliance
- Section 10.10: Copy of Environmental Professional Insurance Certificates

SECTION 1.0: EXECUTIVE SUMMARY

Section 1.1: Phase I ESA Summary and Conclusions

PM Environmental, Inc., (PM) has completed a Phase I Environmental Site Assessment (ESA) of the Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan (hereafter referred to as the "subject property"). This Phase I ESA was conducted in general accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries {(AAI), 40 CFR Part 312} (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-13* (ASTM Standard Practice E 1527-13) (3) guidelines established by the ASTM in the *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions / Designation E 2600-15* (ASTM Practice E 2600-15) and (4) MSHDA's Environmental Review Requirements for 2020.

THE REPORT WAS PREPARED FOR THE EXCLUSIVE USE OF BAY CITY HOUSING COMMISSION, AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

Main Cross Street(s)/Location	Located south of 11 th Street, east of Adams Street, north of Columbus Avenue, and west of North Jefferson Street, Bay City, Bay County, Michigan
Number of Parcels and Acreage	One parcel totaling 1.57 acres
Number of Building(s) and Square Footage	Four buildings: • One single-story restaurant containing 1,823 square feet • One open-air market space containing 35,000 square feet • One warming shed containing approximately 450 square feet • One storage shed containing approximately 100 square feet
Current Property Use	Vacant of occupants

Standard and other historical sources were able to document a former light and power plant building with at least 20 transformers was constructed in the northeastern portion in 1886. The southeastern, southwestern, and central-western portions of the subject property were developed with residential dwellings and associated outbuildings prior to 1912. Two lumber sheds were present in the central-western portion and a "wood office" was present in the northwestern portion in at least 1912. All of the buildings were demolished by 1925, when a portion of the current open air market structure was constructed. The remainder was constructed by 1950. The open air market building has operated as a market and temporary ice rink since construction.

The current restaurant building was constructed in 1937 and was a restaurant from construction until April 2020 and has been vacant of occupants since that time. Scales were present west of the restaurant from at least 1950 until at least 1967, and were removed at an unknown time.

The current warming shed was constructed between 1970 and 1973 and has been utilized for storage since construction, and formerly as a warming shed via a wood burning stove associated with the temporary ice rink. The current outbuilding was constructed between 2009 and 2012 and has been used for general storage since construction.

Phase I Environmental Site Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
PM Project No. 01-12077-0-0001; June 16, 2020

Below is a Summary Table presenting PM's recommended actions for the subject property. PM's Findings, Opinions, and Recommendations are present in Section 8.1-8.4. In addition, any potential Non-ASTM scope related concerns identified in association with the subject property are included. Affirmative answers are further discussed below the table:

Summary Table		
Assessment Topic	Section	Recommended Action
De Minimis Condition	8.1.1	No Further Action
Significant Data Gap	8.1.2	No Further Action
Historical Recognized Environmental Condition (HREC)	8.1.3	No Further Action
Recognized Environmental Condition (REC)	8.1.4	See Below
Controlled Recognized Environmental Condition (CREC)	8.1.5	No Further Action
Asbestos Containing Materials (ACM)	9.1	See Below
Lead Based Paint (LBP)	9.2	See Below
Radon Gas	9.3	No Further Action
100-Year Floodplain	9.4	No Further Action
Potential Wetlands	9.5	No Further Action
Electromagnetic Fields	9.6	No Further Action
High Pressure Buried Gas Mains	9.7	No Further Action
Onsite or Adjoining Blast Hazard	9.8	No Further Action
Noise Assessment	9.9	See Below
Vapor Encroachment	9.10	See Below

Recognized Environmental Condition

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan, the subject property. Any exceptions to, or deletions from, this practice are described in Sections 2.4 and 2.5 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property except the following:

- The northeastern portion was occupied by a transformer substation with at least 20 transformers from at least 1886 until 1925. Transformer substations can contain PCB-containing transformers and other equipment containing general hazardous substances and/or petroleum products. The potential exists that a spill and/or leak has occurred on the property and negatively impacted the subsurface.
- The subject property formerly contained five residential dwellings, which were demolished between 1912 and 1925. It is PM's experience that a common practice, was to demolish the building into the basement and leave all building materials present. Building materials associated with the former buildings may have been pushed into the basement during and/or after demolition and utilized as fill material. Backfill materials were likely removed from the southern parcel when the apartment building was constructed. Additionally, review of a subsurface investigation completed on the east adjoining property (111 North Madison Avenue) in 2017 documents metal contamination in soil above applicable criteria, which is likely the result of contaminated backfill materials. The potential exists for construction debris and contaminated fill material to be present on the subject property associated with the former dwellings.

The following adjoining and/or nearby REC has been identified:

- A former building on the east adjoining property, identified as 409 Columbus Avenue, was occupied by dry cleaning operations from at least 1946 until at least 1962. Dry cleaning operations commonly involve the usage of general hazardous substances and/or petroleum products, which, if improperly managed and/or disposed of, can be a source of contamination. The former building was located approximately 20 feet east of the subject property. Based on the close proximity to the subject property, inferred groundwater flow to the west (toward the subject property), and long-term duration of potential dry cleaning operations (at least 18 years, and potentially 27 years), the potential exists a release has occurred and migrated onto the subject property.

Mold and Moisture Damage: PM observed limited quantities of standing water in the basement and storage areas of the restaurant building. Additionally, PM observed small areas of water damage in ceiling tiles throughout the restaurant. The source of the water intrusion appeared to be a roof leak. PM recommends the source of the water intrusion be repaired and the impacted materials replaced. This can be done as part of routine building maintenance.

Asbestos Containing Materials: A survey to identify suspect ACM was not performed as part of the Phase I ESA. However, during the site reconnaissance, PM noted through its observations of readily accessible occupant areas of the restaurant building and warming shed the existence of building materials that should be considered as suspect for asbestos content. These materials included: acoustical ceiling tiles, drywall walls, exposed insulation, and vinyl floor tile. At the time of the site reconnaissance, these materials generally appeared to be in fair condition. If an award is received, PM can complete a NESHAP pre-renovation survey, prepare an abatement plan, obtain bids for abatement, and oversee abatement in accordance with MSHDA requirements.

Lead Based Paint: Based on the construction of the open air market, restaurant, and warming shed prior to 1978, PM completed a limited visual assessment for potential LBP. PM observed indications of peeling, blistering, and/or chipped paint throughout the restaurant. Since significant renovation or demolition activities will likely occur, PM recommends that a LBP inspection and Risk Assessment be completed for the subject property by a licensed Lead Inspector. If an award is received, PM can complete a Lead Based Paint Inspection and Risk Assessment in accordance with MSHDA requirements.

Noise Assessment: PM completed a desktop noise assessment for the subject property utilizing on NAL in the southwestern portion of the property. The combined day night average sound level (DNL) for all noise sources at this NAL is 74, which is in MSHDA's Normally Unacceptable range.

All sites whose environmental or community noise exposure exceeds the day night average sound level (DNL) of 65 decibels (dB) are considered noise-impacted areas. For new construction that is proposed in high noise areas, grantees shall incorporate noise attenuation features to the extent required by HUD environmental criteria and standards contained in Subpart B (Noise Abatement and Control) of 24 CFR Part 51.~The interior standard is 45 dB.

The "Normally Unacceptable" noise zone includes community noise levels from above 65 dB to 75 dB. Approvals in this noise zone require a minimum of 5 dB additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 dB but does not exceed 70 dB, or a minimum of 10 dB of additional sound attenuation if the day-

night average sound level is greater than 70 dB but does not exceed 75 dB (HUD generally gives a 1 dB variance up to 76 dB).

Vapor Encroachment: The Tier I and non-invasive Tier II Vapor Encroachment Screen (VES) did not reveal any Vapor Encroachment Conditions (VECs) in association with the target property and/or nearby/adjoining properties; with the exception of those identified as RECs above.

Conclusions and Recommendations

PM has performed an Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527-13, ASTM Practice E 2600-15 and the Michigan State Housing Development Authority (MSHDA) Environmental Review Requirements for 2020 of the Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan. Any exceptions to or deletions from this practice are described in the Limitations section of this report. These RECs have been brought to the attention of the client within the requirements of the ASTM Standard Designation E-1527-2013.

These RECs have been brought to the attention of the client within the requirements of the ASTM Standard Designation E-1527-13.

Verification of the presence or absence of contaminants potentially associated with these RECs may be determined through a Phase II investigation at the request of the client. Cost/risk analysis decisions associated with further investigation of these conditions are the decision of the client.

Section 1.2: Identified Data Gaps

Reasonably ascertainable records reviewed as part of this Phase I ESA documented the use of the property back to 1886. Data failure occurred prior to that date, and between 1912 and 1922. In PM's professional opinion, this data failure does not represent a significant data gap.

Section 1.3: Identified Liens or Activity and Use Limitations

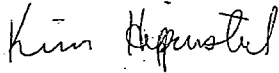
The Client did not report any: (1) environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law; or (2) activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls, that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law.

The summary presented above is general in nature and should not be considered apart from the entire text of the report, which contains the qualifications, considerations and subject property details mentioned herein. Details of findings and conclusions are elaborated upon in this report.

**Phase I Environmental Site Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
PM Project No. 01-12077-0-0001; June 16, 2020**

This report has been reviewed for its completeness and accuracy. Please feel free to contact our office at (800) 313-2966 to discuss this report.

Report Prepared By:
PM Environmental, Inc.

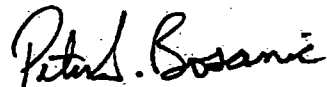


Kim Hippensteel
Staff Consultant

Report Reviewed By:
PM Environmental, Inc.



Jackie Schafer
Regional Manager – Due Diligence



Peter S. Bosanic, P.E., EP
Principal

SECTION 2.0: INTRODUCTION

PM Environmental, Inc. (PM) was retained to conduct a Phase I Environmental Site Assessment (ESA) of Bay City Market Property located 108 Adams Street, Bay City, Bay County, Michigan (subject property). This Phase I ESA was conducted in general accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI), 40 CFR Part 312 (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-13* (ASTM Standard Practice E 1527-13) (3) guidelines established by the ASTM in the *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions / Designation E 2600-15* (ASTM Practice E 2600-15) and (4) MSHDA's Environmental Review Requirements for 2020.

Section 2.1: Purpose

The purpose of this Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), and historical recognized environmental conditions (HRECs) in connection with the subject property. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs, CRECs, and HRECs in connection with the subject property.

Section 2.2: Detailed Scope of Services

PM's scope-of-services is based on its proposal dated March 16, 2020, and the terms and conditions of that agreement. This Phase I ESA included the following:

- An inquiry of environmental conditions by an environmental professional.
- A review of specialized knowledge reported by the Client.
- A review of public and historical records, including those maintained by federal, state, tribal, and local government agencies.
- Interviews with regulatory officials and personnel associated or knowledgeable with the subject property, including as appropriate past and present owners, or neighbors if the property is abandoned.
- A reconnaissance of the subject property and adjoining properties.

Section 2.3: Significant Assumptions

During this Phase I ESA, PM made the following significant assumptions:

- PM assumed that the information provided by Environmental Data Resources (EDR) in the regulatory database report is an accurate and complete representative summary of the information contained in the referenced regulatory agency records, except when such information is obviously contradicted by other data.
- PM assumed that the information used to prepare this assessment that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives, or other secondary sources was an accurate and complete representative summary of the information

possessed by those individuals, representatives, or sources.

Section 2.4: Limitations and Exceptions

There are no deviations from the ASTM Standard. Non-ASTM Scope considerations are included in Section 9.0. Any physical limitations identified during the completion of this report are referenced in Section 6.1.

Due to changing environmental regulatory conditions and potential on-site or adjacent activities occurring after this assessment, the client may not presume the continuing applicability to the subject property of the conclusions in this assessment for more than 180 days after the report's issuance date, per ASTM Standard Practice E 1527-13.

To the best of PM's knowledge, no special terms or conditions apply to the preparation of this Phase I ESA that would deviate the scope of work from the ASTM Standard Practice E 1527-13.

PM was not provided with a copy of the recorded land title records for subject property by the client and was not requested to complete a title search. Therefore, PM cannot comment on any potential relevant information that may have been obtained through review of these records.

Section 2.5: Special Terms and Conditions

To the best of PM's knowledge, no special terms or conditions apply to the preparation of this Phase I ESA.

Section 2.6: User Reliance

PM HAS PREPARED THIS REPORT FOR THE EXCLUSIVE USE OF THE BAY CITY HOUSING COMMISSION, AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

PM acknowledges that these parties may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, PM makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

SECTION 3.0: SUBJECT PROPERTY DESCRIPTION

Section 3.1: Location and Legal Description

Main Cross Streets/Location	Located south of 11 th Street, east of Adams Street, north of Columbus Avenue, and west of North Jefferson Street, Bay City, Bay County, Michigan
Number of Parcels and Acreage	One parcel totaling 1.57 acres
Number of Building(s) and Square Footage	Four buildings: • One single-story restaurant containing 1,823 square feet • One open-air market space containing 35,000 square feet • One warming shed containing approximately 450 square feet • One storage shed containing approximately 100 square feet
Current Property Use	Vacant of occupants
Proposed Property Use	Residential

Township	14 North (14N)
Range	5 East (5E)
Section	28

The legal description of the subject property is presented in Section 10.4. Photographs taken during PM's subject property reconnaissance are provided in Section 10.3.

Section 3.2: Subject Property and Vicinity Characteristics

The subject property is located within an area of Bay City that was observed to be occupied by commercial, vacant, and residential properties.

Section 3.3: Current Use of the Subject Property

The subject property is currently developed as a vacant restaurant and open-air market space.

Section 3.4: Descriptions of Structures, Roads and Other Improvements on the Subject Property

The subject property contains four buildings: one open-air market space containing 35,000 square feet, one restaurant containing 1,823 square feet, one warming shed containing approximately 450 square feet, and one storage shed containing approximately 100 square feet. The restaurant building is further divided into a dining area, kitchen, storage areas, office, restrooms, and partial basement. The remainder of the restaurant building is on a poured concrete foundation. Interior finish materials within the restaurant include vinyl floor tiles, carpeting, drywall walls, and acoustical ceiling tiles. The open-air market space, warming shed, and outbuilding are on poured concrete foundations.

Exterior pavement is present adjacent to the restaurant building and throughout the property. Limited wooded vegetation is present in the southeastern portion.

Section 3.4.1: Municipal Water/Water Wells

The restaurant building is currently connected to municipal water. The remaining subject property buildings are not connected to a water source. PM submitted a Freedom of Information Act (FOIA) request to the Bay City Manager's Office for records related to the subject property. PM received a written response from a representative of the Water Distribution Department who indicated the restaurant building connected to municipal water in 1937, which is consistent with construction. The representative indicated municipal water has been available since at least 1896. Additionally, review of Sanborn maps documents municipal water has been available since at least 1912. Based on this information and the subject property located in a historically developed area, the former buildings on the subject property likely connected to municipal water during construction. No records of private water wells have been identified through review of reasonably ascertainable information.

Section 3.4.2: Sanitary Sewer/Septic System

The restaurant building is currently connected to municipal sewer. PM submitted a FOIA request to the Bay City Manager's Office for records related to the subject property. PM received a written response from a representative of the Utility Department who indicated the restaurant

building connected to municipal sewer in 1937, which is consistent with construction. The current open-air market space, warming shed, and outbuilding are not connected to a wastewater system. The representative indicated municipal sewer has been available since at least 1896. Based on this information and the subject property located in a historically developed area, the buildings on the subject property likely connected to municipal sewer during construction. No records of private septic systems have been identified through review of reasonably ascertainable information.

Section 3.4.3: Storm Sewer/Storm Water Detention Ponds

PM observed several storm water catch basins on the subject property. No staining or evidence of poor waste management practices was observed in association with these exterior catch basins.

Section 3.4.4: Heat Source

The restaurant building is connected to natural gas, which is supplied by Consumers Energy. Review of the Consumers Energy SIMS website indicates the restaurant building connected to natural gas in at least 1968. Review of the SIMS website indicates natural gas has been available to the area since at least 1904. During the site reconnaissance PM observed a boiler system in the partial basement, which was likely installed during construction.

Review of historical records documents the former power company building utilized coal stoves for heat. Additionally, the warming shed formerly utilized a wood burning stove for heat. PM has not identified the former coal or wood burning as a REC.

PM was unable to determine the heat source for the former dwellings and wood office building on the subject property in at least 1912. Based on the availability of natural gas since at least 1904, the former dwellings potentially utilized natural gas as a heat source. No documentation of fuel oil use was identified during review of reasonably ascertainable records, and no visual evidence of fuel oil use was identified during the site reconnaissance. There is the potential for a fuel oil AST or UST to have been used at the property and for a release to have occurred. However, based upon PM's experience, the risk of a release associated with a potential fuel oil UST is low. If a fuel oil UST is discovered in the future and/or evidence of a release of historical fuel oil is identified, further evaluation may be necessary.

MSHDA requirements specify that natural gas transmission lines that have an operational pressure of 400 psi or higher and a diameter of four inches or greater must comply with MSHDA's setback requirements. Natural gas is supplied through a low pressure (60 psi), two inch main, which is located in the right-of-way to the south of the subject property, as well as through the central portion of the subject property. MSHDA requirements specify that natural gas transmission lines that have an operational pressure of 400 psi or higher and a diameter of four inches or greater must comply with MSHDA's setback requirements. Since the operational pressure is below 400 psi, calculation of setback distances was not completed.

Section 3.5: Current Uses of Adjoining Properties

A visual inspection of the adjoining properties was made from the subject property and public thoroughfares. Color photographs are included within Section 10.3. Refer to Section 5.5 for details on historical usage. Refer to the paragraphs below for additional information.

North Adjoining Properties, across 11th Street

The northeast adjoining property is residential.

The north adjoining property, identified as 407 11th Street, is occupied by T & M Bosco Distributing, a restaurant supply company.

The north adjoining property, identified as 401 11th Street, is occupied by Strong Roots, Green Thumbs, a community garden program.

The northwest adjoining property is residential.

East Adjoining Property, across North Jefferson Street

The east adjoining property, identified as 111 North Madison Avenue, is occupied by a vacant school building and vacant residential dwelling.

East Adjoining Properties

The east adjoining properties are vacant land.

South Adjoining Properties, across Columbus Avenue

The southeast adjoining property, identified as 506 Columbus Avenue, is occupied by A Piece of Ewe Yarn Shop.

The south adjoining property, identified as 408 Columbus Avenue, is occupied by Economy Center, a clothing boutique.

The southeast adjoining property is residential.

West Adjoining Properties, across Adams Street

The northwest adjoining property, identified as 310 11th Street, is occupied by Haerter HVAC.

The west adjoining property, identified as 311 Columbus Avenue, is occupied by vacant commercial buildings.

SECTION 4.0: USER PROVIDED INFORMATION

The ASTM Standard defines a User as "the party seeking to use Practice E 1527 to complete an environmental site assessment. A User may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The User has specific obligations for completing a successful application of this practice as outline in Section 6 (of the ASTM Standard E-1527-13).

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small business Liability relief and Brownfield's Revitalization Act of 2001 (the "Brownfield's Amendments"), the User must provide certain information (if available) included on the User Questionnaire to the environmental professional. Failure to provide this information could result

in a determination that "all appropriate inquiry" is not complete.

PM provided Mr. William Phillips (i.e. the User) with a copy of MSHDA's User's Environmental Questionnaire and Disclosure Statement, which was completed and returned to PM. None of the questions were answered in the affirmative or in a manner that would suggest the potential for RECs by Mr. Phillips. No other specialized knowledge or experience of the subject property was provided to PM by the User.

Section 4.1: Title Records

A chain of title was not conducted for the subject property. PM utilized aerial photography, city directories, assessing information, and interviews with individuals knowledgeable of the subject property area as sources to determine the historical use of the subject property (see Section 10.4). Information from these sources is referenced throughout this report.

The Client did not provide recorded land title records to PM for review. The subject property was occupied by various commercial operations from 1886 to 2020. Refer to Section 5.4.3 for additional information.

Section 4.2: Environmental Liens or Activity and Use Limitations

The Client did not report any: (1) environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law; or (2) activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls, that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law.

PM reviewed the Part the 201 Enforcement Liens list available through the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD), for information about environmental liens on the subject property. There was no information regarding environmental liens encumbering the subject property, or any pending, threatened, or past environmental litigation, environmental administrative procedures, or notices from government entities regarding possible violations of environmental law or possible environmental liability.

PM has not identified any record of activity and use limitations or institutional controls or engineering controls associated with the subject property through review of reasonable ascertainable records.

Section 4.3: Specialized Knowledge

The User did not report specialized knowledge or experience, actual knowledge, or commonly known or reasonable ascertainable information that is material to identifying recognized environmental conditions in connection with the subject property.

Section 4.4: Commonly Known or Reasonably Ascertainable Information

The User did not report knowledge of any commonly known or reasonably ascertainable information within the local community that is material to RECs in connection with the subject property.

Section 4.5: Valuation Reduction for Environmental Issues

The User did not report knowledge of, or reason to anticipate, a reduction in the value of the subject property for environmental issues.

Section 4.6: Owner, Property Manager, and Occupant Information

The User did not report knowledge relevant information from the owner, property manager, or occupants.

Section 4.7: Reason for Performing this Phase I ESA

According to the User, this Phase I ESA was conducted to fulfill MSHDA's requirements as part of an application for a MSHDA tax credit and due diligence related to purchasing the property.

Section 4.8: Other

The User did not provide PM with any additional information pertaining to the subject property.

SECTION 5.0: RECORDS REVIEW

Section 5.1: Standard Environmental Record Sources

PM retained EDR to provide current regulatory database information compiled by a variety of federal and state regulatory agencies. A copy of the database report is included in Section 10.5. The purpose of obtaining this data was to evaluate potential environmental risks associated with the subject property, adjoining sites, and other sites that are (1) identified on target lists, and (2) within varying distances of up to one mile from the subject property. PM reviewed the following federal and state databases for such listings within the indicated search radii.

Type	Regulatory Agency Database	Approximate Minimum Search Distance (AMSD)	Number of Sites within AMSD
Federal	National Priority List (NPL) Sites	1 mile	0
Federal	Delisted National Priority List (DNPL) Sites	½ mile	0
Federal	Superfund Enterprise Management System (SEMS) (formerly CERCLIS – renamed in 2015) Sites	½ mile	0
Federal	SEMS-Archive Sites (formerly CERLIS-NFRAP – renamed 2015)	½ mile	1
Federal	Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Sites	1 mile	0
Federal	RCRA non-CORRACTS Treatment, Storage or Disposal Facilities (TSDF) Sites	½ mile	0
Federal	RCRA Large Quantity Generators (LQG) Sites	subject property and adjoining properties	0
Federal	RCRA Small Quantity Generators (SQG) Sites	subject property and adjoining properties	0
Federal	RCRA Very Small Quantity Generators (VSQG) Sites	subject property and adjoining properties	0

Type	Regulatory Agency Database	Approximate Minimum Search Distance (AMSD)	Number of Sites within AMSD
Federal	RCRA Non-Generators (NON-GEN) Sites	subject property and adjoining properties	0
Federal	Institutional Control / Engineering Control Registries	subject property	0
Federal	Environmental Response and Notification System (ERNS)	subject property	0
State & Tribal	Hazardous Waste Sites (HWS) (equivalents to NPL and CERCLIS)	1 mile	0
State & Tribal	Solid Waste Facilities/Landfill Sites (SWF/LF)	½ mile	0
State & Tribal	Leaking Underground Storage Tank (LUST) Sites	½ mile	24
State & Tribal	Registered Underground Storage Tank (UST) Sites	subject property and adjoining properties	2
State & Tribal	Institutional Control / Engineering Control Registries	subject property	0
State & Tribal	Brownfield Sites	½ mile	8
State & Tribal	Michigan Inventory of Facilities (Includes Part 201 Sites and Baseline Environmental Assessment (BEA) Sites)	½ mile	39
Either	Unmappable Database Listings (a.k.a. Orphan Sites)	database-dependent	4

Section 5.1.1: Subject Property and Occupant Listings

The subject property or its known occupants are not identified in the referenced databases.

Section 5.1.2: Adjoining and Nearby Sites

PM's review of the referenced databases also considered the potential or likelihood of contamination from adjoining and nearby sites. To evaluate which of the adjoining and nearby sites identified in the regulatory database report present an environmental risk to the subject property, PM considered the following criteria:

- The type of database on which the site is identified.
- The topographic position of the identified site relative to the subject property.
- The direction and distance of the identified site from the subject property.
- Local soil conditions in the subject property area.
- The known or inferred groundwater flow direction in the subject property area.
- The status of the respective regulatory agency-required investigation(s) of the identified site, if any.
- Surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes, and ditches) located between the identified site and the subject property.

Only those sites that are judged to present a potential environmental risk to the subject property and/or warrant additional clarification are further evaluated. Using the referenced criteria, and based upon a review of readily available information contained within the regulatory database report, PM did not identify adjoining (i.e., bordering) or nearby sites (e.g., properties within a ¼-mile radius) listed in the regulatory database report that were judged to present a potential

environmental risk to the subject property, with the exception of the following:

Bosco Food Service Inc – This site is identified as 407 11th Street and is the north adjoining property. Review of the regulatory database documents this is a closed LUST site with one diesel release reported in 1999 and closed in 2000. Available regulatory files documents one 2,000 gallon diesel UST was installed in 1987 and removed in 1999. The release was discovered during UST removal activities. Available EGLE records document the property was utilized for private automotive service operations associated with restaurant supply delivery operations, but did not include documentation of sampling locations. The former UST was likely located approximately 230 feet north of the subject property and across 11th Street. Based on distance considerations, lack of documented migrating contamination, clay geology, and inferred groundwater flow to the west (cross-gradient to the subject property), PM has not identified this property as a REC.

Airgas Great Lakes – This site is identified as 311 Columbus Avenue and is the west adjoining property. Review of the regulatory database documents this is a closed LUST site with one release of an unknown substance reported in 1991 and closed in 1992. One 3,000 gallon gasoline UST installed in 1974 and removed in 1992. Review of historical records documents a former automotive sales and gasoline dispensing station was present on the property from at least 1950 until 1955. A subsurface investigation in 2015 identified metals (chromium, selenium, and mercury), polynuclear aromatic hydrocarbons (PNAs) and volatile organic compounds (VOCs) in soil on the property. Groundwater was not encountered to 12.0 feet bgs, the maximum depth explored on this property. Due to errors in record keeping within the state archive, specific sampling locations were not reasonably ascertainable. PM requested additional information concerning the sampling locations from EGLE; however, a response was not received within the time constraints of this report. Based on the closure of the release, clay geology, and inferred groundwater flow to the west (away from the subject property), PM has not identified this property as a REC.

Old Town Garage & Tire Inc – This site is identified as 200 Washington Avenue and is located approximately 210 feet northwest. Review of the regulatory database documents this is a closed LUST site with one release of used oil reported in 1992 and closed in 1998. The property was occupied by a gasoline service station for an unknown period to time prior to 1992, with ten USTs containing gasoline, used oil, and unknown substances installed at unknown times and removed in 1992. During UST removal activities all ten USTs on the property were leaking. Over 400 cubic yards of contaminated soils were excavated and disposed off-site, and subsequent soil and groundwater sampling did not identify contamination above Tier 1 commercial criteria. Groundwater was documented between six and eight feet below ground surface. Based on the distance from the subject property (approximately 210 feet northwest and across 11th Street), clay geology, and inferred groundwater flow to the west (away from the subject property), PM has not identified this property as a REC.

Norco Realty – This site is identified as 110 Washington Avenue and is located approximately 450 feet southwest. Review of the regulatory database documents this is a closed LUST site with one release of an unknown substance reported and closed in 1997. One 250 gallon used oil UST was installed at an unknown time and removed in 1997 approximately 630 feet southwest of the subject property. A subsurface investigation during UST removal activities documents diesel range organics (DROs) and metals in soil above Part 213 Risk Based Screening Levels (RBSLs). According to the subsurface investigation, the identified contamination was likely the result of foundry sand soils encountered in the vicinity of the USTs,

and the release was subsequently closed. Based on the distance from the subject property (approximately 630 feet southwest and across Columbus Avenue), clay geology, and inferred groundwater flow to the west (away from the subject property), PM has not identified this property as a REC.

Additional properties were listed in the regulatory database; however, based on the likely groundwater flow to the west (toward the Saginaw River), and distance considerations, PM has not identified these properties as RECs.

Section 5.2: Additional Environmental Records Sources

The objective of reviewing historical sources is to: (1) develop a history of previous uses or specific occupancies of the subject property, (2) identify those uses or specific occupancies that are likely to have led to potential environmental concerns at the subject property, and to the extent identifiable, at adjoining properties, and (3) identify obvious uses of the subject property from the present, back to the property's *obvious* first developed use, or back to 1940, whichever is earlier. Further, the historical review was completed to assess whether operations were conducted that involved the use, storage and/or disposal of hazardous waste, hazardous substances, and/or petroleum products.

An understanding of the subject property was obtained from reasonably ascertainable standard and other historical sources extending back to 1886. Data failure occurred prior to that date, and from 1886 to 1912, and from 1912 to 1922. Interviewees provided independent knowledge of subject property and surrounding area usage which in turn provided information confirming historical subject property and general adjoining and surrounding land usage. See Sections 5.4.3 and 5.5 for specific documentation of standard and other historical sources consulted and availability of these sources. The history of the subject property and adjoining and surrounding areas, which was able to be derived from standard historical sources and other sources to satisfy the ASTM standard requirements for uses of a property (except those excluded by data failure), have been described within the text of this report.

Section 5.2.1: Assessing Department/Building Department Records

Reasonably ascertainable assessment information provided by the Bay City Assessing Department was obtained and reviewed. Assessing records document that the subject property consists of one parcel totaling 1.57 acres and is developed with one open-air market containing 35,000 square feet and one restaurant building containing 1,823 square feet. Assessing records did not document construction dates for the building, or the current warming shed and outbuilding. Review of historical records documents the open air market was constructed in stages between 1925 and 1950, the current restaurant building was constructed in 1937, the current warming shed was constructed between 1970 and 1973 and contains approximately 450 square feet, and the current outbuilding was constructed between 2009 and 2012 and contains approximately 100 square feet. Assessing records only documented the current assessment information for the subject property. PM requested historical property record cards for the subject property; however, a response was not received within the time constraints of this report. If PM does receive records which alter the findings of this report the client will be notified. Copies of available assessment records for the subject property and the current legal description are included in Section 10.4.

PM submitted a Freedom of Information Act (FOIA) request to the Bay City Building Department

to review available records for the subject property. PM received a written response with copies of permits dated 1997 through 2009. Available records document replacement support columns at the open air market building, replacement doors and installation of a fire suppression system at the restaurant, and indicate the open air market has not connected to municipal water. PM's review did not identify any potential environmental concerns associated with the subject property. Copies of relevant information obtained from the department are included in Section 10.4.

Section 5.2.2: Zoning Department Records

PM reviewed the Bay City zoning map. The subject property is currently zoned "C-2-A: General Business." PM's review did not identify potential environmental concerns associated with the subject property based on its current zoning.

Section 5.2.3: Previous Site Investigations

No previous site investigations were identified by PM for the subject property. Previous reports may exist for the subject property, however, none were provided to PM by the client or owner of the property, and none were available with the appropriate state regulatory agencies.

Section 5.3: Physical Setting Source(s)

PHYSICAL SETTING INFORMATION FOR THE SUBJECT PROPERTY AND SURROUNDING AREA		SOURCE
Topography: Refer to Figure 1 for an excerpt of the Topographic Map		
Site Elevation	590 feet above mean sea level (msl)	United States Geological Survey Division (U.S.G.S.) 7.5-Minute Topographic Map of the Bay City, Michigan Quadrangle, 1967 (photo revised in 1973)
Topographic Gradient	West	
Closest Surface Water	The Saginaw River, located approximately 1,780 feet west at an elevation of 580 feet above msl	
General Soil Characteristics: Refer to Section 10.4 for a copy of the soil survey map and soil type descriptions		
Soil Type	Urban Land	United States Department of Agriculture, Custom Soil Resource Report for Bay County, Michigan (survey area data: September 16, 2019)
Description	Urban land is typically areas occupied by buildings, roadways, parking lots, etc. A typical soil profile, water capacity, and corrosivity are not defined. A typical soil profile for Tappan soils consist of loam to 13 inches below ground surface (bgs), clay loam to 29 inches bgs, underlain by loam to 80 inches bgs. Depth to water is expected at surface level. Corrosivity is high for uncoated steel and low for concrete.	

PHYSICAL SETTING INFORMATION FOR THE SUBJECT PROPERTY AND SURROUNDING AREA		SOURCE
Area Specific Geology/Hydrogeology Characteristics:		
Geology	Geology was documented as building rubble to 0.5 feet bgs, sand to 1.0 feet bgs, underlain by clay to 16.0 feet bgs, the maximum dept explored.	Subsurface investigations for the east adjoining property (May 2016 and October 2017)
Hydrogeology	Groundwater was not encountered to at least 16.0 feet bgs. Based on topography, groundwater is expected to flow to the west, toward the Saginaw River.	
Oil and Gas Wells:		
Current Oil and Gas Wells on Subject Property	None identified	The Michigan Department of Environment, Great Lakes and Energy (EGLE) Geologic Survey Division (GSD) web site
Historical Oil and Gas Wells on Subject property	None identified	

Section 5.4: Historical Use Information on the Subject Property

Section 5.4.1: Aerial Photographs and Sanborn Map Coverage for the Subject Property

PM reviewed reasonably ascertainable aerial photographs for the subject property area. The sources and years reviewed are identified in the table below. Relevant aerial photographs are included in Section 10.4.

PM reviewed reasonably ascertainable Sanborn Fire Insurance Maps for the subject property area, which were obtained from EDR. The sources and years reviewed are identified in the table below. Relevant Sanborn Maps are included in Section 10.4.

The following table summarizes the sources reviewed and the information obtained about the subject property from these sources. Information obtained about the adjoining properties from these sources is summarized in Section 5.5.

Aerial and Sanborn Summary for the Subject Property

Year and Source	Summary of Information
1912 Sanborn Map (EDR)	A building identified as "Bay City Electric Light Department" is present in the northeastern portion. The western portion of the building is utilized for coal storage, and the northeastern portion contains 20 transformers. Two outbuildings are located directly south of the building. A building identified as a "wood office" and likely associated with the on-site lumber storage is present in the northwestern portion. Two additional outbuildings are present in the central-eastern portion. Associated lumber sheds are present in the central-western portion. A total of five dwellings and three associated outbuildings are present in the central and southern portions. An alley runs north to south through the central portion.
1938 Aerial (EDR)	All of the previously identified buildings have been demolished. The current open air market structure has been constructed, and the roof over the northern portion was under construction at the time this aerial photograph was taken. The current restaurant has been constructed in the eastern portion. Wooded vegetation is present in the southeastern portion, and the northeastern portion appears to be vacant of buildings and structures.
1950 Sanborn Map (EDR)	An outbuilding has been constructed in the southern portion. The entire open air market structure has been constructed in the western portion. Scales are present west of the restaurant building. The restaurant building is identified with a 1937 construction date. The remainder is similar to the previous aerial year.
1955 Aerial (EDR)	The outbuilding has been demolished. The northeastern portion is utilized for surface parking. The remainder is similar to the previous aerial year.
1966 Aerial (EDR)	Similar to the previous aerial year.
1967 Sanborn Map (EDR)	Similar to the previous aerial year.
1970 Aerial (EDR)	Similar to the previous aerial and Sanborn map years.
1973 Aerial (EDR)	A building, consistent with the current warming shed, has been constructed in the north-central portion. The remainder is similar to the previous aerial and Sanborn map years.
1986 Aerial (EDR)	Similar to the previous aerial year.
1988 Aerial (EDR)	
1998 Aerial (EDR)	
2006 Aerial (EDR)	
2009 Aerial (EDR)	
2012 Aerial (EDR)	
2016 Aerial (EDR)	

A summary of this information along with other historical sources is included in Section 5.4.3.

Section 5.4.2: Local Street Directories for the Subject Property

Reasonably ascertainable local street directories for Bay City, Michigan were researched. Directories were available from 1922 to 2014. Directories were researched in at least five-year increments, when available. It should not be construed that the earliest date represented is the initial date of occupancy.

PM also reviewed listings for adjoining commercial properties. Information from the listings reviewed is included in Section 5.5.

Subject Property Address: 108 Adams Street

2014-2000	Bay County Market
1995	Not Listed
1992	Bay County Farmers Market
1987-1962	Bay County Market, Produce Market Restaurant
1960	County Market
1955-1946	Market Restaurant
1942-1922	Not Listed

Bay County Market was listed on Adams Street with no associated address from 1933 through 1955, and Market Restaurant was listed on Adams Street with no associated address from 1937 through 1942, which are listings associated with the subject property.

Historic Subject Property Address: 104 Adams Street

2014-1924	Not Listed
1922	Residential

Historic Subject Property Address: 114 Adams Street

2014-1929	Not Listed
1924-1922	Residential

Historic Subject Property Address: 116 Adams Street

2014-1929	Not Listed
1924-1922	Residential

Historic Subject Property Address: 403 Columbus Avenue

2014-1924	Not Listed
1922	Vacant

Historic Subject Property Address: 405 Columbus Avenue

2014-1955	Not Listed
1950-1946	County Market
1942-1922	Not Listed

Historic Subject Property Address: 111 North Jefferson Street

2014-1933	Not Listed
1929	Vacant
1924-1922	Residential

Historic Subject Property Address: 113 North Jefferson Street

2014-1933	Not Listed
1929-1922	Residential

A summary of this information along with other historical sources is included in Section 5.4.3.

Section 5.4.3: Summary of Historical Use for the Subject Property

Standard and other historical sources were able to document a former light and power plant building with at least 20 transformers was constructed in the northeastern portion in 1886. The southeastern, southwestern, and central-western portions of the subject property were developed with residential dwellings and associated outbuildings prior to 1912. Two lumber sheds were present in the central-western portion and a "wood office" was present in the northwestern portion in at least 1912. All of the buildings were demolished by 1925, when a portion of the current open air market structure was constructed. The remainder was constructed by 1950. The open air market building has operated as a market and temporary ice rink since construction.

The current restaurant building was constructed in 1937 and was a restaurant from construction until April 2020 and has been vacant of occupants since that time. Scales were present west of the restaurant from at least 1950 until at least 1967, and were removed at an unknown time.

The current warming shed was constructed between 1970 and 1973 and has been utilized for storage since construction, and formerly as a warming shed via a wood burning stove associated with the temporary ice rink. The current outbuilding was constructed between 2009 and 2012 and has been used for general storage since construction.

The northeastern portion was occupied by a transformer substation with at least 20 transformers from at least 1886 until 1925. Transformer substations can contain PCB-containing transformers and other equipment containing general hazardous substances and/or petroleum products. **The potential exists that a spill and/or leak has occurred on the property and negatively impacted the subsurface, which represents a REC.**

The subject property formerly contained five residential dwellings, which were demolished between 1912 and 1925. It is PM's experience that a common practice, was to demolish the building into the basement and leave all building materials present. Building materials associated with the former buildings may have been pushed into the basement during and/or after demolition and utilized as fill material. Backfill materials were likely removed from the southern parcel when the apartment building was constructed. **The potential exists for construction debris and contaminated fill material to be present associated with the former dwellings, which represents a REC.**

Section 5.5: Historical Use Information on the Adjoining Properties

The same aerial photographs and Sanborn Maps described in Section 5.4.1 and city directories from Section 5.4.2 were obtained and reviewed for the adjoining properties. The following paragraphs provide information about the adjoining properties obtained during the site reconnaissance and through review of reasonably ascertainable information.

North Adjoining Properties, across 11th Street

The northeast adjoining property is currently and has historically been residential and/or vacant land.

The north adjoining property, identified as 407 11th Street, was utilized for lumber storage in at least 1912 and was vacant land from at least 1938 to 1955. The current building was constructed in 1956 and has been occupied by the current tenant, a fruit distribution company, since at least 1960, and likely since construction. This property is identified in the regulatory database refer to Section 5.1.2 for additional information.

The north adjoining property, identified as 401 11th Street, has been residential and/or utilized as a professional office since at least 1912. The property was also occupied by meat and produce retailers from at least 1912 until at least 1988. The former retail building was demolished by 1998 and that portion of the property has been vacant land since that time.

The northwest adjoining property is currently and has historically been residential.

East Adjoining Property, across North Jefferson Street

The east adjoining property, identified as 111 North Madison Avenue, is occupied by a vacant school building and vacant residential dwelling. This property has been occupied by various schools and residential dwellings since at least 1882. The current building was constructed in 1953, was occupied by a YMCA from 1954 until approximately 2010, a charter school until at least 2013, and has been vacant of occupants since 2015. This property is not listed in the regulatory database; however, review of a previous subsurface investigation completed for this property in 2017 documents metals in soil (chromium, selenium, lead, and mercury) above Part 201 Generic Residential Cleanup Criteria (GRCC) approximately 65 feet east of the subject property. Review of the previous subsurface investigation documents this contamination was likely associated with fill material from the former school building. Based on the relatively immobile nature of metals in soils and clay geology, PM has not identified this property as a REC.

East Adjoining Properties

The east adjoining property, identified as 409 Columbus Avenue, was occupied by a former storefront building from at least 1912 until at least 1970, and was demolished by 1973. The building was occupied by various low-risk retail tenants from at least 1912 until at least 1924, a battery company in at least 1933, and various laundry tenants from at least 1946 until at least 1962. Dry cleaning operations commonly involve the usage of general hazardous substances and/or petroleum products, which, if improperly managed and/or disposed of, can be a source of contamination. The former building was located approximately 20 feet east of the subject property. **Based on the close proximity to the subject property, inferred groundwater flow**

to the west (toward the subject property), and long-term duration of potential dry cleaning operations (at least 18 years, and potentially 27 years), the potential exists a release has occurred and migrated onto the subject property, which represents a REC.

The remaining east adjoining properties are currently and have historically been residential and/or vacant land.

South Adjoining Properties, across Columbus Avenue

The southeast adjoining property, identified as 506 Columbus Avenue, was occupied by a platform associated with the formerly adjacent railroad tracks in at least 1912. A gasoline dispensing station was constructed by 1933, and the former building was converted to low-risk retail by 1946. The building was demolished by 1986, when the current building was constructed. The current building has been occupied by various low-risk retail and church tenants since construction. Based on the lack of shallow groundwater to act as a transport mechanism, relatively short duration of gasoline dispensing operations (13 years), lack of listing in the regulatory database, and regional clay geology, PM has not identified this property as a REC.

The current retail building was constructed on the south adjoining property, identified as 408 Columbus Avenue, by 1900. Railroad tracks were present on the property from at least 1912 until at least 1955, and were removed by 1966. The building has been occupied by various low-risk retail tenants since at least 1912.

The southeast adjoining property is currently and has historically been residential.

West Adjoining Properties, across Adams Street

The northwest adjoining property, identified as 310 11th Street, was residential from at least until at least 1938. The current building was constructed in 1950 and was occupied by radio and electronics retail tenants from at least 1960 until at least 1972, and professional office tenants from at least 1977 until at least 1987. The building was vacant of occupants in at least 2008 and for approximately ten years, and has been occupied by the current HVAC tenant since at least 2017.

The west adjoining property, identified as 311 Columbus Avenue, was utilized as a lumber yard, cabinet shop, and planing mill in at least 1912. The former buildings were demolished by 1938, and a former automotive sales and gasoline dispensing building was constructed by 1950. Automotive sales and gasoline dispensing operations ceased by 1955, and the property was occupied by an oxygen supply business from that time until at least 2005. The property has been vacant of occupants since at least 2008. This property is identified in the regulatory database refer to Section 5.1.2 for additional information.

SECTION 6.0: SITE RECONNAISSANCE

Section 6.1: Methodology and Limiting Conditions

Reconnaissance Information	
PM Field Personnel:	Ms. Kim Hippensteel
Site Reconnaissance Date:	May 28, 2020

Escort:	Mr. Joe Rodriguez, employee of former tenant of the restaurant building, and Mr. William Phillips and Mr. Karl Opheim, Bay City Housing Commission
Limitations:	Interior observations limited by storage. Access was not granted to the storage shed. These limitations do not represent as significant data gap.

Section 6.2: General Subject Property Setting

A general property description and improvements is provided in Sections 3.1 and 3.2.

The subject property consists of one parcel totaling 1.57 acres and is located south of 11th Street, east of Adams Street, north of Columbus Avenue, and west of North Jefferson Street in Bay City, Michigan. Four buildings are present: one single-story restaurant containing 1,823 square feet, one open-air market space containing 35,000 square feet, one warming shed containing approximately 450 square feet, and one storage shed containing approximately 100 square feet. The subject property is located in an area of Bay City characterized by commercial and residential properties.

Section 6.3: Exterior Observations

The following table summarizes the exterior site observations. Affirmative responses are discussed in more detail following the table.

Category	Feature	Observed
Exterior Observations	Aboveground Storage Tanks (ASTs)	No
	Drums, Barrels and/or Containers > 5 gallons	Yes
	Stressed Vegetation	No
	Stained Soil or Pavement	No
	Monitoring Wells	No
	Soil Piles of Unknown Origin/Site Filling	No
	Exterior Dumpsters with Staining	No
	Leachate or Other Waste Seeps	No
	Trash, Debris, and/or Other Waste Materials	Yes
	Uncontrolled Dumping or Disposal Areas	No
	Surface Water Discoloration, Sheen or Free Product	No
	Strong, Pungent or Noxious Odors	No
	Storm water retention or detention ponds	No
	Pits, Ponds, Lagoons	No
	Pad or Pole Mounted Transformers and/or Capacitors	No
	Underground Storage Tanks	No
	Fuel Dispensers	No
	Pipeline Markers	No

Drums, Barrels and/or Containers > 5 gallons: PM observed several 55-gallon barrels containing trash and storm water in the southeastern portion of the property. The barrels were staged over asphalt in good condition, with no indication of leaking or staining. Based on the observed site conditions PM has not identified the barrels as a REC. PM recommends removal and proper disposal of the barrels.

Trash, Debris, and/or Other Waste Materials: PM observed household trash and debris in the

southeastern portion of the property. According to Mr. Rodriguez, the trash and debris was left by local residents after the restaurant ceased operations in April 2020. Based on the observed site conditions PM has not identified the trash and debris as a REC. PM recommends removal and proper disposal of the trash and debris.

Section 6.3.1: Underground Storage Tanks (USTs)

Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and historical presence of USTs on the subject property. Specifically, no records of USTs were identified though review of reasonably ascertainable records and PM did not observe any evidence of USTs (i.e. fill ports, vent pipes, etc.) during the site reconnaissance.

Section 6.4: Interior Observations

Section 6.4.1: Description of Interior Operations

The following table summarizes the interior site observations. Affirmative responses are discussed in more detail following the table.

Category	Feature	Observed
Interior Equipment	Elevators	No
	Air Compressors	No
	Incinerators	No
	Waste Treatment Systems	No
	Presses/Stamping Equipment	No
	Press Pits	No
	Hydraulic Lifts or In-ground hoists	No
	Paint Booth	No
	Plating Tanks	No
	Lathes, Screw Machines, etc.	No
Aboveground Chemical or Other Waste Storage or Waste Streams	Aboveground Storage Tanks (ASTs)	No
	Drums, Barrels and/or Containers > 5 gallons	No
	Chip Hoppers	No
	Hazardous or Petroleum Waste Streams	No
	Fuel Dispensers	No
	Sumps or Cisterns	No
	Dry Wells	No
	Oil/Water Separators	No
	Floor Drains, Trench Drains, etc.	Yes
	Stained or Corroded Flooring	No
Interior Conditions	Water/Moisture Damage or Evidence of Mold	Yes

Floor Drains, Trench Drains, etc.: PM observed one floor drain in the basement of the restaurant building, which collects discharge from the adjacent boiler system. The floor drain, which likely discharges to the municipal sewer system, appeared to be in good condition with no indication of poor waste management practices.

Water/moisture Damage or Evidence of Mold: PM observed limited quantities of standing water in the basement and storage areas of the restaurant building. Additionally, PM observed small areas of water damage in ceiling tiles throughout the restaurant. The source of the water

intrusion appeared to be a roof leak. PM recommends the source of the water intrusion be repaired and the impacted materials replaced. This can be done as part of routine building maintenance.

SECTION 7.0: INTERVIEWS

The objective of completing interviews with knowledgeable site contacts is to obtain information about the uses and physical characteristics of the property.

In general, interviewees supported the information reviewed from other historical sources (i.e. aerial photos, city records, etc.).

Section 7.1: Interview with Owners, Occupants, or Others

Represents	Interviewed	Name and Title	Length of Time Associated with Subject Property	Comments
Current Property Owner	No	Not applicable	Not applicable	PM requested contact information for a representative of the current owner; however, the User indicated a representative was not available for interview.
Key Site Manager	Yes	Mr. Joe Rodriguez, employee of the former occupant	Since December 2019	According to Mr. Rodriguez, the restaurant ceased operations in April 2020 and the entire property has been vacant of occupants since that time.
Former Occupant(s)				
Former Property Owner	No	Not applicable	Not applicable	Contact information for the former owner was not reasonably ascertainable or provided by the User
Current Occupant(s)	No	Not applicable	Not applicable	The subject property is unoccupied with no current business operations; therefore, no occupants were available for interview.
Other(s)	No	Not applicable	Not applicable	No other relevant interviews were conducted as part of this Phase I ESA.

Section 7.2: Interview with Local Government Officials

PM submitted requests to the Bay City municipal offices and the Bay County Health Department.

Section 7.2.1: Local Fire Department

PM submitted a FOIA request to the Bay City Department of Public Safety to review available records for the subject property. PM received a written response from a representative of the department indicating there were no records of incidents of fires, chemical spills, dumping, or HAZMAT responses to the subject property.

Section 7.2.2: Local Health Department

PM submitted a FOIA request to the Bay County Health Department to review records for the subject property. PM received a written response from a representative of the department indicating no files were available.

SECTION 8.0: EVALUATION AND REPORT PREPARATION

Section 8.1: Findings

The following known or suspect environmental conditions associated with the subject property have been identified. These conditions may include de minimis conditions, RECs, both on-site and off-site, as well as historical RECs, controlled RECs, non-ASTM findings such as Asbestos Containing Materials and/or wetland identification, and environmental non-compliance issues.

Section 8.1.1: De Minimis Condition

A de minimis condition, as defined in the ASTM Standard, is a condition that generally does not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not RECs or CRECs. No de minimis conditions were identified during this assessment.

Section 8.1.2: Significant Data Gaps

A data gap, as defined in the ASTM Standard, is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts by the environmental professional to gather such information. The environmental professional must then determine whether these gaps are significant. PM did not identify or encounter any instances of significant data gaps during the course of this ESA.

Section 8.1.3: Historical Recognized Environmental Conditions (HRECs)

An HREC, as defined in the ASTM Standard, is a past release of hazardous substances or petroleum products that has occurred in connection with the subject property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the subject property to any required controls. PM has not identified any HRECs in association with the subject property.

Section 8.1.4: Recognized Environmental Conditions (RECs)

We have performed a Phase I Environmental Site Assessment in conformance with the scope

and limitations of ASTM Practice E 1527-13 of the Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan, the subject property. Any exceptions to, or deletions from, this practice are described in Sections 2.4 and 2.5 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property except the following:

- The northeastern portion was occupied by a transformer substation with at least 20 transformers from at least 1886 until 1925. Transformer substations can contain PCB-containing transformers and other equipment containing general hazardous substances and/or petroleum products. The potential exists that a spill and/or leak has occurred on the property and negatively impacted the subsurface.
- The subject property formerly contained five residential dwellings, which were demolished between 1912 and 1925. It is PM's experience that a common practice, was to demolish the building into the basement and leave all building materials present. Building materials associated with the former buildings may have been pushed into the basement during and/or after demolition and utilized as fill material. Backfill materials were likely removed from the southern parcel when the apartment building was constructed. Additionally, review of a subsurface investigation completed on the east adjoining property (111 North Madison Avenue) in 2017 documents metal contamination in soil above applicable criteria, which is likely the result of contaminated backfill materials. The potential exists for construction debris and contaminated fill material to be present on the subject property associated with the former dwellings.

The following adjoining and/or nearby REC has been identified:

- A former building on the east adjoining property, identified as 409 Columbus Avenue, was utilized for dry cleaning operations from at least 1946 until at least 1962. Dry cleaning operations commonly involve the usage of general hazardous substances and/or petroleum products, which, if improperly managed and/or disposed of, can be a source of contamination. The former building was located approximately 20 feet east of the subject property. Based on the close proximity to the subject property, inferred groundwater flow to the west (toward the subject property), and long-term duration of potential dry cleaning operations (at least 18 years, and potentially 27 years), the potential exists a release has occurred and migrated onto the subject property.

Section 8.1.5: Controlled Recognized Environmental Conditions (CRECs)

A CREC, as defined in the ASTM Standard, is a recognized environmental condition (REC) resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. PM has not identified any CRECs in association with the subject property.

Section 8.2: Opinion

PM has performed an Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527-13, ASTM Practice E 2600-15 and the Michigan State Housing Development Authority (MSHDA) Environmental Review Guidelines for 2020 of the Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan. Any

exceptions to or deletions from this practice are described in the Limitations section of this report.

This assessment has revealed no evidence of recognized environmental conditions connected with the property, with the exception of the REC(s) identified in Section 8.1.4.

Section 8.3: Additional Investigation

PM recommends additional investigation to address the RECs identified in this Phase I ESA. PM could provide a cost estimate to complete this additional investigation at the request of the client.

If award received, PM can provide a cost estimate for a NESHAP compliant Asbestos Containing Materials survey and Lead Based Paint Inspection and Risk Assessment in accordance with MSHDA requirements.

Section 8.4: Conclusions

PM has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of Bay City Market Property located at 108 Adams Street, Bay City, Bay County, Michigan, the subject property. Any exceptions to, or deletions from, this practice are described in Sections 2.4 and 2.5 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property except as listed in Section 8.1.4 of this report.

Section 8.5: Additional Services

Additions to the ASTM Standard include a 100-year flood plain evaluation, an evaluation for the presence of potential wetlands, inspection for potential electromagnetic fields due to high tension power lines, an evaluation of the presence of high pressure gas mains in the vicinity of the subject property, a railroad/roadway/airport noise analysis, and a Tier I Vapor Encroachment Screen (VES) of the target property.

Section 8.6: Deviations

Refer to Section 2.4 for additional discussion.

Section 8.7: References

The following published sources were utilized during completion of this Phase I ESA:

- *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM, ASTM Designation E 1527-13, Published November 2013.
- EDR Digital Archive Directories, obtained from Environmental Data Resources, Inc. (EDR), Milford, Connecticut. City: Bay City. Years: 1992-2014.
- Polk's City Directories, obtained from EDR, Milford, Connecticut. City: Bay City. Years: 1922-1987.

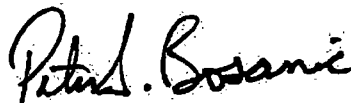
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) "Your County's Radon Levels" map, referenced June 8, 2020.
- Federal Emergency Management Agency (FEMA) floodplain map, dated September 17, 2020 (Map No. 26017C0334E).
- U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) Map, referenced June 8, 2020.
- United States Geological Survey Division (U.S.G.S.) 7.5 Minute Topographic Map Bay City, Michigan Quadrangle, 1967 (photo-revised 1973).
- *Custom Soil Resource Report for Bay County, Michigan*, U.S. Department of Agriculture, survey area data: September 16, 2019.

Section 8.8: Signature(s) of Environmental Professional(s)

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Jackie Schafer
Regional Manager – Due Diligence



Peter S. Bosanic, P.E., EP
Principal

Section 8.9: Qualification(s) of Environmental Professional(s)

Refer to resumes included in Section 10.8 for descriptions of qualifications for the above Environmental Professionals.

SECTION 9.0: NON-ASTM SCOPE SERVICES

Section 9.1: Friable and Non-friable Asbestos Containing Materials (ACMs)

Asbestos containing products are often referred to as "asbestos containing materials" (ACM) and can include but is not limited to floor tile, plaster, drywall, surfacing, pipe wrap, roofing materials, siding and many other common building materials in any building regardless of construction date. ASTM Standard Designation E-1527-13 and NESHAP regulations define ACM as containing more than one percent asbestos, which is also considered regulated ACM. Friable ACM is ACM that can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable refers to materials that contain asbestos bound by cement, plastic, adhesive, etc., (i.e. gaskets, floor coverings, roofing materials, etc.).

A survey to identify suspect ACM was not performed as part of the Phase I ESA. However, during the site reconnaissance, PM noted through its observations of readily accessible

occupant areas of the restaurant building and warming shed the existence of building materials that should be considered as suspect for asbestos content. These materials included: acoustical ceiling tiles, drywall walls, exposed insulation, and vinyl floor tile. At the time of the site reconnaissance, these materials generally appeared to be in fair condition. If an award is received, PM can complete a NESHAP pre-renovation survey, prepare an abatement plan, obtain bids for abatement, and oversee abatement in accordance with MSHDA requirements.

Section 9.2: Lead-Based Paint (LBP)

Based on the construction of the open air market, restaurant, and warming shed prior to 1978, PM completed a limited visual assessment for potential LBP. PM observed indications of peeling, blistering, and/or chipped paint throughout the restaurant. Since significant renovation or demolition activities will likely occur, PM recommends that a LBP inspection and Risk Assessment be completed for the subject property by a licensed Lead Inspector. If an award is received, PM can complete a Lead Based Paint Inspection and Risk Assessment in accordance with MSHDA requirements.

Section 9.3: Radon Gas

A radon inspection was not required for the subject property, since it is not located within one of the 24 counties (Barry, Berrien, Branch, Calhoun, Cass, Clinton, Dickinson, Eaton, Hillsdale, Ionia, Iron, Jackson, Kalamazoo, Lapeer, Livingston, Lenawee, Monroe, Oakland, Otsego, Ottawa, Shiawassee, St. Joseph, Tuscola, and Washtenaw) designated by the EGLE as 25% or more homes tested equal to or above 4 picocuries/liter (pCi/L) of radon exposure. Therefore, no additional investigation is necessary.

Section 9.4: 100-Year Floodplain

According to a Federal Emergency Management Agency (FEMA) floodplain map, dated September 17, 2020 (Map number 26017C0334E), the subject property is located in "Zone X (Unshaded)", defined as areas of minimal risk outside the 100-year (1% annual chance) and 500-year (0.2% annual chance) floodplains. PM did not observe any sensitive ecological areas on the subject property, including potential wetlands, during the site reconnaissance. Furthermore, topographical features present in the subject property area are not representative of a flood plain. Documentation of the floodplain map is included in Section 10.7.

Section 9.5: Wetlands

PM did not observe any wet areas potentially associated with wetlands on the subject property during the site reconnaissance. In addition, review of the National Wetlands Inventory (NWI) Maps from the U.S. Fish and Wildlife Service and the EGLE Wetlands Map Viewer, did not identify any wetlands on the subject property. Documentation of the NWI map is included in Section 10.7.

Section 9.6: Electromagnetic Fields

PM did not observe any high tension wires or substations in the vicinity of the subject property. Additionally, no cell phone towers, antennae, or arrays were observed on the subject buildings during the site reconnaissance.

Section 9.7: High Pressure Buried Gas Lines

No high pressure gas lines were identified within 1,000 feet of the subject property.

Section 9.8 Onsite or Nearby Blast Hazard

MSHDA requires site that contain onsite or nearby above ground storage tanks (ASTs) be evaluated according to HUD's Guidebook on Acceptable Separation Distance (ASD). PM searched an acceptable distance from the subject property in which potential ASTs could be a hazard. PM did not identify any ASTs that would require the calculation of acceptable separation distances (ASD) for thermal radiation and/or blast overpressure.

Section 9.9: Noise Analysis

MSHDA requires that a HUD desktop noise assessment be completed for properties that are located within 1,000 feet of a major roadway, 3,000 feet of a railroad, or 15 miles of a military or FAA-regulated airports. The subject property is located within the applicable distance of James Clements Municipal Airport, MBS International Airport, Saginaw County H.W. Browne Airport, Columbus Avenue, and Washington Avenue. PM conducted a Desktop Noise Assessment in general accordance with the US Department of Housing and Urban Development (HUD) Noise Abatement and Control standards contained in 24 CFR 51B. The Desktop Noise Assessment is provided in Appendix 10.7. One NALs (NAL #1 on the Subject Property was used for this analysis based on proximity to noise sources.

Using the HUD DNL calculator, the following is a summary of the findings of the Desktop Noise Assessment.

NAL #	Combined Source DNL (dB)	Category
1 (Southwestern portion of subject property)	74	Normally Unacceptable

All sites whose environmental or community noise exposure exceeds the day night average sound level (DNL) of 65 decibels (dB) are considered noise-impacted areas. For new construction that is proposed in high noise areas, grantees shall incorporate noise attenuation features to the extent required by HUD environmental criteria and standards contained in Subpart B (Noise Abatement and Control) of 24 CFR Part 51.~The interior standard is 45 dB.

The "Normally Unacceptable" noise zone includes community noise levels from above 65 dB to 75 dB. Approvals in this noise zone require a minimum of 5 dB additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 dB but does not exceed 70 dB, or a minimum of 10 dB of additional sound attenuation if the day-night average sound level is greater than 70 dB but does not exceed 75 dB (HUD generally gives a 1 dB variance up to 76 dB).

Section 9.10: Assessment of Potential Vapor Encroachment Conditions (VECs)

PM completed a Tier I Vapor Encroachment Screen (VES) of the target property. The Tier I VES were conducted in general accordance with the guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions Designation E 2600-15* (ASTM Standard Practice E 2600-15).

The purpose of the VES was to determine if potential Vapor Encroachment Concerns (pVECs) or Vapor Encroachment Concerns (VECs) exist in association with the target property. ASTM's Standard Practice E 2600-15 defines the term VEC as the presence or likely presence of any contaminant of concern (COC) in the indoor air environment of existing or planned structures on a property caused by the release of vapor from contaminated soil or groundwater either on the property or within close proximity to the property, at a concentration that presents or may present an unacceptable health risk to occupants. A VEC can be further defined as any COC within 100 feet for soil impacts or ground water impacts of an existing/planned structure or to the target property boundary if there are no planned structures.

The scope of this Tier I VES included a review of the geologic, hydrologic, hydrogeologic, topographic maps, aerial photography, city directories, Sanborn Fire Insurance Maps, a review of previous site investigations, regulatory databases and other pertinent data obtained during the preparation of the Phase I. No subsurface investigation of the property was undertaken as part of this Tier I VES.

Section 9.10.1: Additional Historical Record Sources

Screening tests: 1) search distance test to determine if there are any known or suspected contaminated properties in the area of concern (AOC); 2) a chemical of concern (COC) test to determine for those known or suspect contaminated properties within the AOC whether or not COC are likely to be present. The critical distance is defined as the lineal distance in any direction between the nearest edge of the contaminated plume and the nearest property boundary. For contaminated properties downgradient of the subject property, the AOC is reduced to the area within the critical distance.

- Critical distance = 30 feet for dissolved petroleum hydrocarbon COC
- Critical distance = 100 feet for COC and petroleum hydrocarbon/non-petroleum/chlorinated solvents COC

PM conducted additional historical record review beyond the scope of a Phase I ESA consisting of review of city directories, aerial photography, and the regulatory database to identify additional potentially contaminated sources of COCs within the ASTM E 2600-15 Approximate Minimum Search Distances (AMSDs). The primary area of concern included a radius of 1/3 mile (1,742 feet) and 1/10 mile (528 feet) for COCs using various factors (geology, hydrogeology, COCs, etc.). The additional historical review did not identify any further potential sources of COCs within ASTM E 2600-15 AMSDs, with the exception of:

Phase I Environmental Site Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
PM Project No. 01-12077-0-0001; June 16, 2020

Property Address	Distance and direction from Property	Suspect Historical Usage (dates of usage)	Historical Source	Represents VEC (yes or no with justification)
111 North Madison Avenue (east adjoining property)	Approximately 50 feet east	Previous site assessment	Previous site assessment	No, based on distance considerations, documented clay geology, and the relatively immobile nature of metals in soil.
409 Columbus Avenue (east adjoining property)	Approximately 20 feet east	Historical dry cleaners (at least 1946-1962)	Sanborns and city directories	Yes, based on the close proximity, duration of operations, and inferred groundwater flow toward the subject property
506 Columbus Avenue (southeast adjoining property)	Approximately 70 feet southeast	Historical gasoline dispensing station (1933-1946)	Sanborns and city directories	No, based on the lack of shallow groundwater to act as a transport mechanism, clay geology, lack of listing in the regulatory database, and relatively short duration of gasoline dispensing operations.
311 Columbus Avenue (west adjoining property)	Approximately 90 feet west	Historical gasoline service station (1944-1952)	Sanborns, city directories, and regulatory files	No, based on the regional clay geology, closure of the release, and inferred groundwater flow to the west (away from the subject property).
407 11 th Street	Approximately 60 feet north	Historical gasoline dispensing (1987-1999)	Regulatory records	Refer to Section 5.2

Additional properties were listed in the regulatory database and Sanborn Maps, however, based on the regional clay geology, lack of shallow groundwater to act as a transport mechanism, inferred groundwater flow to the west, and distance considerations, PM has not identified these properties as VECs.

Section 9.10.2: Conclusions/Opinion

This Tier I VES did not reveal any VECs in association with the target property and/or nearby/adjoining properties; with the exception of those identified in Sections 8.1.4 and 9.10.1 of this report.

The screening process concludes that a VEC likely exists.

FILES WERE EXCLUDED THAT ARE AVAILABLE WITHIN MDEQ
RECORDS THAT INCLUDE:

FIGURES

REFERENCES MADE TO THOSE FILES SHALL BE CONSIDERED
AS IF THEY WERE FULLY CONTAINED HEREIN

Section 10.3: Site Photographs

SITE PHOTOGRAPHS



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 1



Northern and eastern faces of restaurant and
open air market space

Photograph 2



Western face of restaurant



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 3



Southern face of restaurant

Photograph 4



Northern and western faces of warming shed



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 5



Eastern face of warming shed and open air market space

Photograph 6



Interior of open air market space



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 7



Interior of warming shed

Photograph 8



Dining area of restaurant



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 9



A typical restroom

Photograph 10



Kitchen area



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 11



Storage area

Photograph 12



Office area



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 13



Partial basement

Photograph 14



North adjoining property



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 15



Typical adjoining residential property

Photograph 16



Northwest adjoining property



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 17



East adjoining property

Photograph 18



East and south adjoining properties



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

Photograph 19



South adjoining properties

Photograph 20



Northwest adjoining property



Photographs From Site Reconnaissance
PM Project No. 01-12077-0-0001
Location: 108 Adams Street, Bay City, Michigan

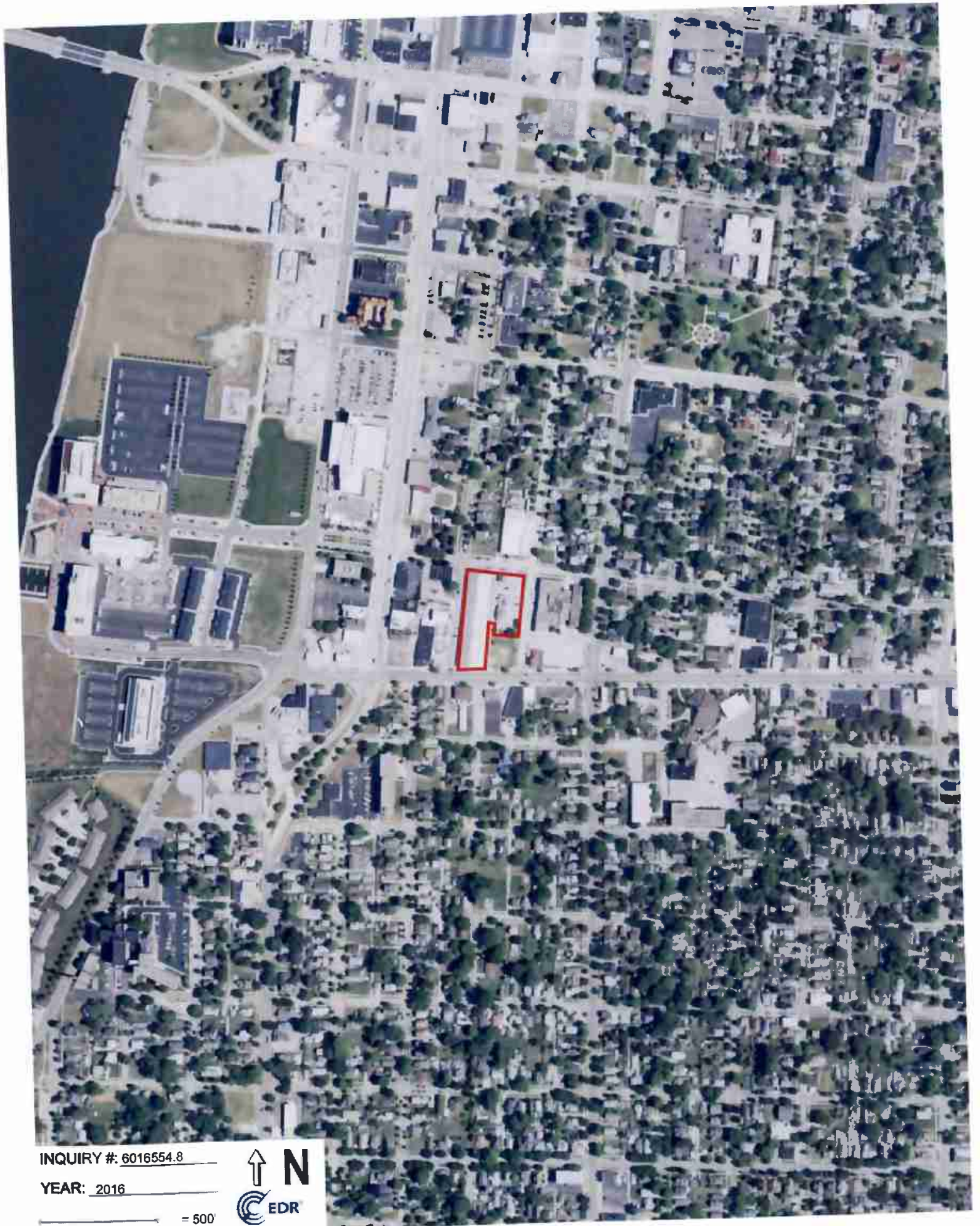
Photograph 21



West adjoining property

Section 10.4: Historical Research Documentation

AERIAL PHOTOGRAPHS



INQUIRY #: 6016554.8

YEAR: 2016

— 500'





INQUIRY #: 6016554.8

YEAR: 2012

— = 500'







INQUIRY #: 6016554.8

YEAR: 2006

— = 500'





INQUIRY # 6016554.8

YEAR: 1998

= 500'





INQUIRY #: 6016554.8

YEAR: 1988

 = 500'





INQUIRY #: 6016554.8

YEAR: 1986

— = 500'





INQUIRY #: 6016554.8

YEAR: 1973

_____ = 500'





INQUIRY #: 6016554.8

YEAR: 1970

_____ = 500'





INQUIRY #: 6016554.8

YEAR: 1966



= 500'



INQUIRY #: 6016554.8

YEAR: 1955

 = 500





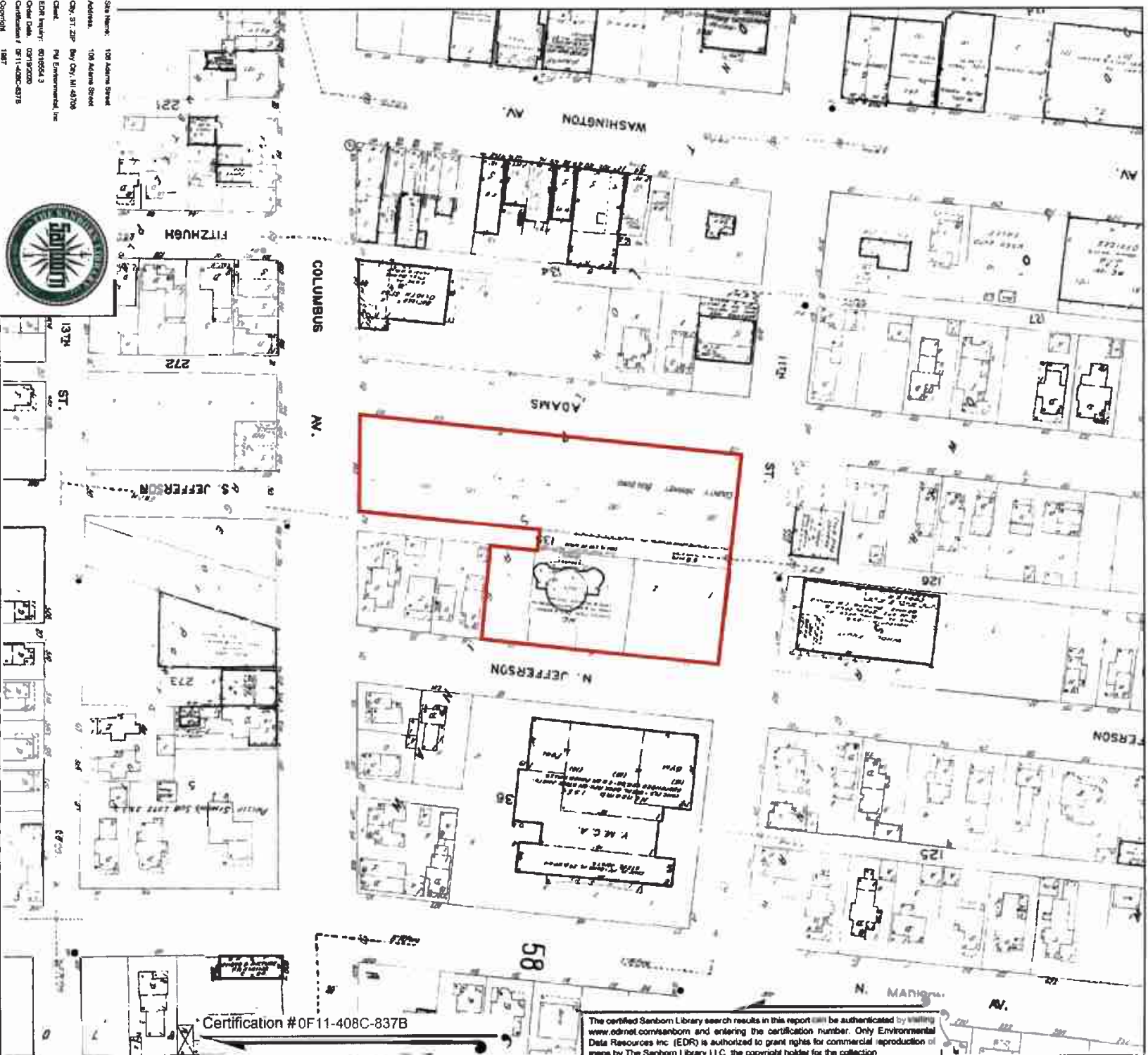
INQUIRY #: 6016554.8

YEAR: 1938

— = 500'



SANBORN FIRE INSURANCE MAPS



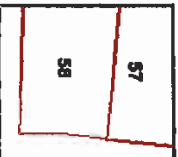
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #0F11-408C-837B

Site Name: 100 Adams Street
Address: 100 Adams Street
City, ST, ZIP: Bay City, MI 48706
Client: PA Environmental, Inc.
EDR Inquiry: 0016554.3
Order Date: 03/19/2020
Certification / 0F11-408C-837B
Copyright: 1967

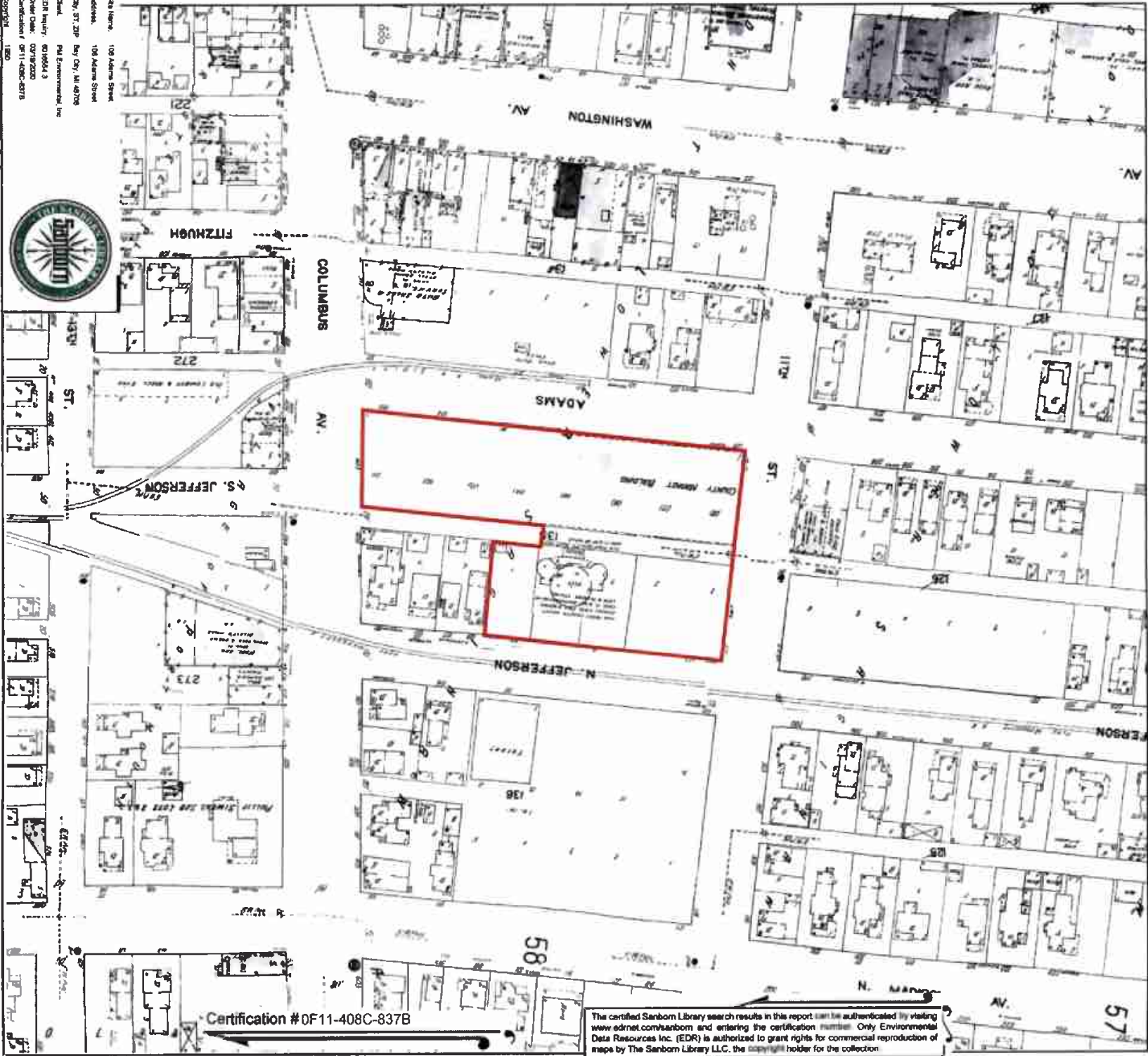


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Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 58
Volume 1, Sheet 57





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 Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 58
 Volume 1, Sheet 57
 Volume 1, Sheet xxx

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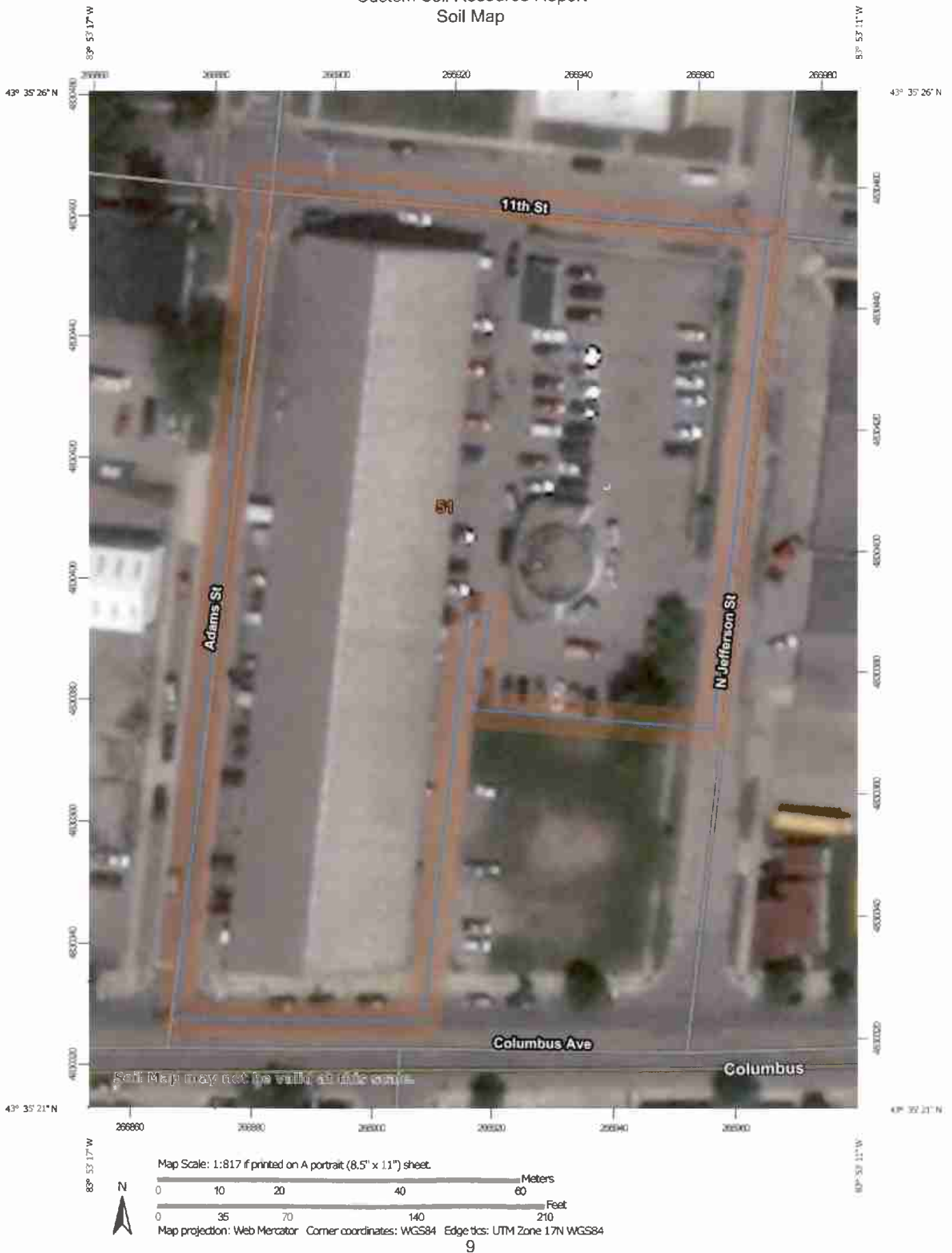
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SOIL SURVEY INFORMATION

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bay County, Michigan

Survey Area Data: Version 17, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Feb 18, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
51	Urban land	2.3	100.0%
Totals for Area of Interest		2.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Bay County, Michigan

51—Urban land

Map Unit Setting

National map unit symbol: 683b

Elevation: 580 to 600 feet

Mean annual precipitation: 31 to 31 inches

Mean annual air temperature: 46 to 47 degrees F

Frost-free period: 157 to 198 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Rousseau

Percent of map unit: 5 percent

Landform: Beach ridges on till plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Londo

Percent of map unit: 5 percent

Landform: Knolls on till plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Tappan

Percent of map unit: 5 percent

Landform: Flats, till plains, depressions

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

Essexville

Percent of map unit: 5 percent

Landform: Drainageways, flats on till plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Qualities and Features

This folder contains tabular reports that present various soil qualities and features. The reports (tables) include all selected map units and components for each map unit. Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Soil Features

This table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage, or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected

Custom Soil Resource Report

initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (K_{sat}), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Custom Soil Resource Report

Soil Features—Bay County, Michigan									
Map symbol and soil name	Restrictive Layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		<i>Low-RV-High</i>	<i>Range</i>		<i>Low-High</i>	<i>Low-High</i>			
		<i>In</i>	<i>In</i>		<i>In</i>	<i>In</i>			
51—Urban land									
Urban land		—	—		—	—			
Essexville		—	—		0	—	Moderate	High	Low
Londo		—	—		—	—	High	High	Low
Rousseau		—	—		—	—	Low	High	High
Tappan		—	—		—	—	High	High	Low

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United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelpdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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ASSESSING DEPARTMENT RECORDS

FILES WERE EXCLUDED THAT ARE AVAILABLE WITHIN EGLE
RECORDS THAT INCLUDE:

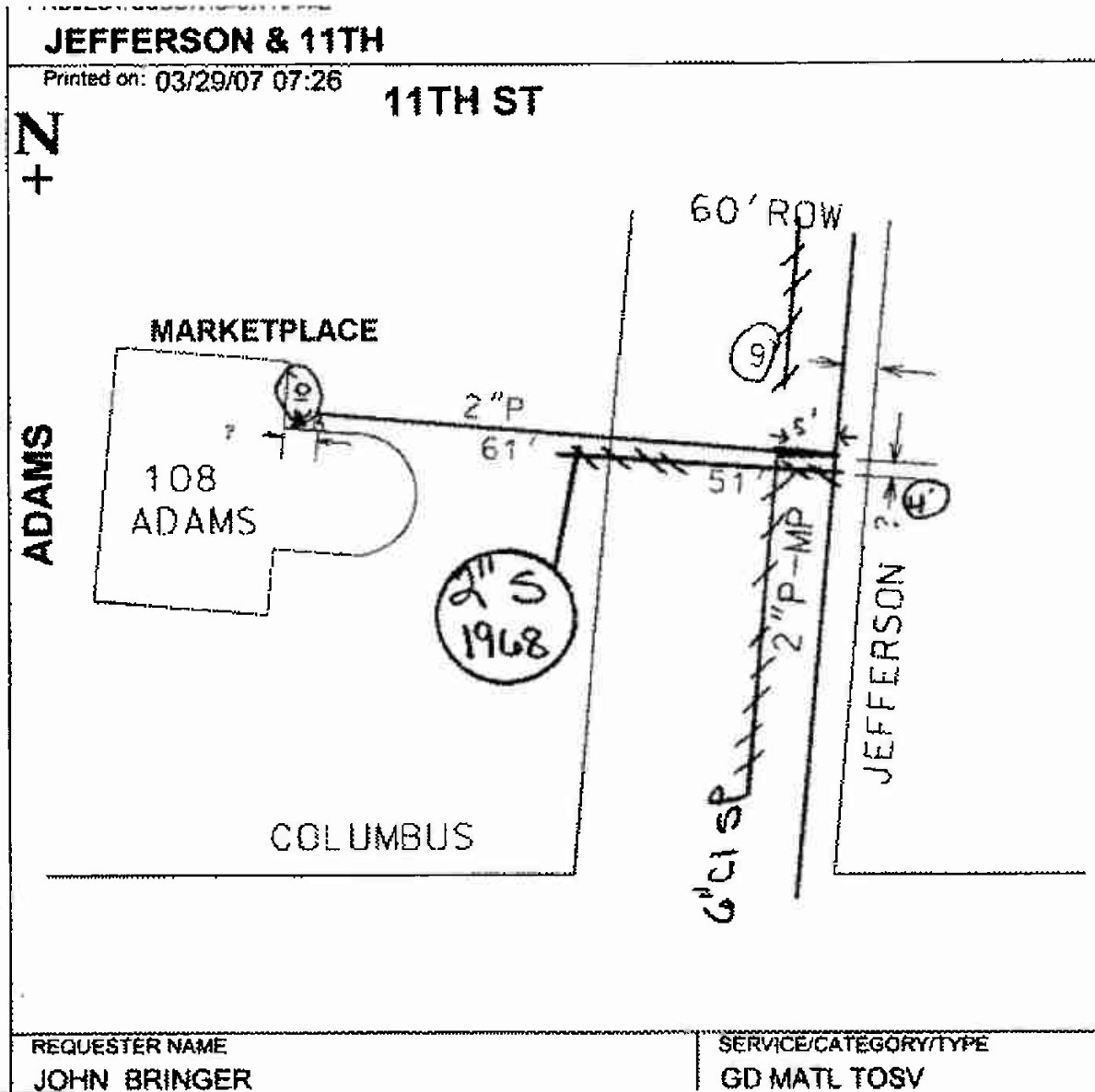
ASSESSING INFORMATION

REFERENCES MADE TO THOSE FILES SHALL BE CONSIDERED
AS IF THEY WERE FULLY CONTAINED HEREIN

NATURAL GAS CONNECTION MAP

Address: 108 ADAMS ST, BAY CITY

Gas Service Extension: 2" P, Inserted: N, Year Installed: 1978


[Previous](#)

Notice: This information is for design purposes only and is not reliable for construction. All locations are approximate, facilities may have been added and/or altered after any revision or as-printed date, and service lines may not be shown. Field staking is available at no charge by calling MISS DIG (800-482-7171) three working days in advance of the digging, and the precise location and depth of all underground facilities must be identified in accordance with the MISS DIG Act, PA 174 of 2013 as amended, and any other applicable law or ordinance. Use of these maps does not relieve the user of any legal duty to comply with all applicable laws or ordinances. Consumers Energy shall be consulted before any action is taken on the basis of this map, and the map must be destroyed when no longer needed.



12 HOURS
(3 WORKING DAYS)
**BEFORE YOU DIG
CALL MISS DIG**
800-482-7171
(TOLL FREE)

FOR QUESTIONS CONCERNING THIS MAP
PLEASE CALL 1-877-240-9602

CONSUMERS ENERGY
UNDERGROUND PLANT

ALL LOCATIONS ARE APPROXIMATE.
SERVICES ARE NOT SHOWN. LOCATIONS
WILL BE VERIFIED BY STAKING UPON REQUEST.

ISSUED BY Gas Information Management
ON 09-10-19. FACILITIES MAY HAVE BEEN ADDED
AFTER MAP PRINTED DATE THEREFORE,
CONSUMERS ENERGY SHALL BE CONSULTED
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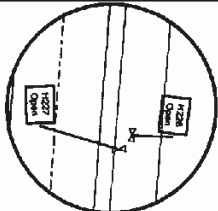
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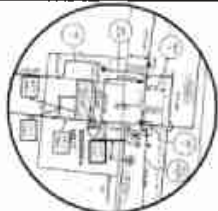
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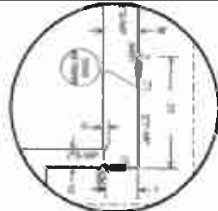
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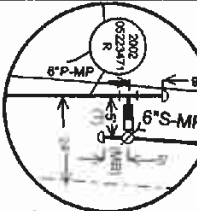
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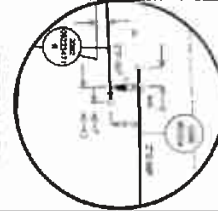
DETAIL "D"



DETAIL "E"



DETAIL "F"



DETAIL "G"



14-55-29-1

SAGINAW RIVER



14-55-21-3

14-55-28-3

14-55-28-1

Consumers Energy		14-55-28-2	
TOWNSHIP: BANGOR	SECTION: 14	REVISION: 10-10-19	REVISION: 10-10-19
COUNTY: BAY CENTRAL	SECTION: 14	REVISION: 10-10-19	REVISION: 10-10-19
HEADQUARTERS: BAY CENTRAL	SECTION: 14	REVISION: 10-10-19	REVISION: 10-10-19
This map has been plotted and approved by the GIM Commission Team		EAB	

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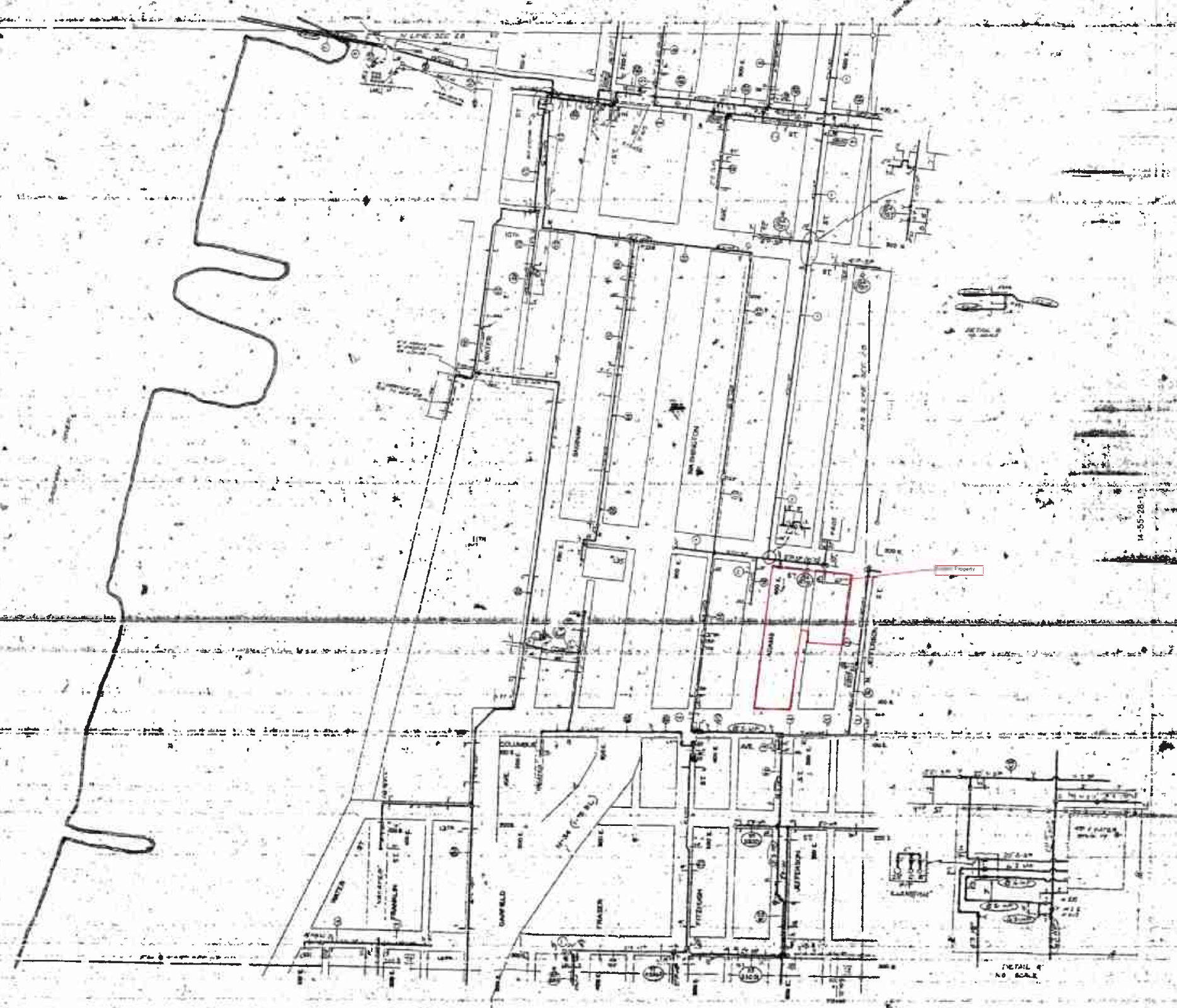
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Section 10.5: Regulatory Records Documentation

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DATABASE FILES WERE EXCLUDED THAT ARE AVAILABLE
WITHIN EGLE. REFERENCES MADE TO THOSE FILES SHALL BE
CONSIDERED AS IF THEY WERE FULLY CONTAINED HEREIN

PM PROFESSIONAL RESUMES

KIM HIPPENSTEEL

STAFF CONSULTANT

1.800.313.2966 www.pmenv.com hippensteel@pmenv.com

AREAS OF EXPERTISE

- Staff researcher for Phase I Environmental Site Assessments (ESAs)
- Data collection, site investigation, and preparation of Phase I ESAs
- Collection and evaluation of data for Phase I Reports, and preparation of reports
- Experience in implementing and completion of various site assessment standards and professional protocol and commercial lending requirements (ASTM E-1527)



EDUCATION

- Central Michigan University
B.S. Environmental Science and
Natural Resources

JACKIE S. SCHAFER

REGIONAL MANAGER—DUE DILIGENCE

1.800.313.2966 www.pmenv.com schafer@pmenv.com



Jackie Schafer is the Regional Manager of Due Diligence at PM Environmental, Inc. and has served clients in over eight states. She specializes in Environmental Due Diligence including Phase I Environmental Site Assessments and customized environmental assessments to support all forms of real estate transactions. She has managed a variety of environmental due diligence projects, and her recent focus includes serving Low-Income Housing Tax Credit (LIHTC) clients.

AREAS OF EXPERTISE

- Regional coordination and management of due diligence group
- Data collection, site investigation, and preparation of Phase I ESA and Transaction Screen projects
- Experience in implementation and completion of various site assessment standards and professional protocol and commercial lending requirements (ASTM E-1527, ASTM E-1528)
- Peer technical review of Phase I ESA projects using ASTM Standard 1527
- Experience in real estate portfolio analysis for evaluation of environmental risk associated with single and multi property transactions for the lending industry
- Experience with local, state, and federal regulatory acts
- Experience with NEPA Part 50 and Part 58 projects

EDUCATION

- Michigan State University B.S.
Environmental Geosciences

CERTIFICATIONS

- Certified Asbestos Building Inspector
Accreditation #A44306
- Successfully completed EDR
Environmental Due Diligence 101
Course
- Meets the definition of Environmental
Professional as defined in § 312.10 of
40 CFR 312

PETER S. BOSANIC, P.E., EP, Q.C.

FOUNDER AND PRESIDENT

1.800.313.2966 www.pmenv.com bosanic@pmenv.com



Peter Bosanic is the President and Principal Engineer at PM Environmental, Inc. He has over 25 years of relevant experience and his role includes maintaining the company's industry leadership and implementing its strategic business plan. He has extensive experience in environmental risk management, environmental & engineering due diligence, M&A, Brownfield redevelopment and economic development incentives, leaking UST management, remediation, environmental compliance, industrial hygiene projects and government contracts. Bosanic regularly works with financial institutions, investors, developers, retail petroleum clients, municipalities, industries, business and government agencies and regulators.

AREAS OF EXPERTISE

- Environmental Due Diligence for financial institutions, investors, developers and government agencies including:
 - Phase I & II Environmental Site Assessments (ESAs)
 - Vapor intrusion investigations
 - Baseline Environmental Assessments (BEAs)
 - Due Care Plans and Continuing Obligations Evaluations
 - Property Condition Assessments (PCAs)
- Leaking UST and industrial site investigations, feasibility studies and corrective action plans and remediation
- Environmental compliance audits
- Brownfield redevelopment economic development consulting including grants and other incentives
- Industrial hygiene services experience including asbestos, lead based paint and other hazardous materials
- Government environmental contract project management on projects for state owned or funded projects
- Multifamily (privately owned and public housing agencies) environmental and engineering services including Phase I and II ESAs, NEPA Investigations, HUD environmental assessments and Capital Needs Assessments (CNAs)

EDUCATION

- Michigan State University B.S. Civil and Environmental Engineering
- Michigan State University Graduate Studies Environmental Engineering
- Various Continuing Education and Professional Development Classes
- ASTM Risk Based Corrective Action Training
- Zweig White Principals Academy

CERTIFICATIONS

- OSHA 40 Hours Hazwoper and 8-hour Supervisor Training
- Environmental Professional (EP) as defined in § 312.10 of 40 CFR 312
- ASTM PCA Training
- HUD MAP CNA Training
- Qualified UST Consultant (QC) in Michigan

PROFESSIONAL ACTIVITIES

- National Brownfield Association
- Mortgage Bankers Association
- Environmental Bankers Association
- Michigan Association of Environmental Professional
- Michigan Petroleum Association
- Chi Epsilon Civil Engineering Honor Society
- Michigan Housing Council

REGISTRATION

- Professional Engineer in the following States: Alabama, Kentucky, Michigan, Mississippi, Ohio, and Tennessee

Section 10.9: MSHDA Phase I Letter of Reliance



Corporate Headquarters
Lansing, Michigan
3340 Ranger Road, Lansing, MI 48906
f: 877.884.6775
t: 517.321.3331

Michigan Locations
Berkley **Bay City**
Grand Rapids **Chesterfield**
Lansing **Oak Park**

SECTION X 2020 MSHDA PHASE I LETTER OF RELIANCE

PRIVILEGED AND CONFIDENTIAL

Mr. Dan Lince
Environmental Manager
Rental Development Division
Michigan State Housing Development Authority
735 East Michigan Avenue
Lansing, Michigan 48912

Re: Phase I Environmental Site Assessment of the Bay City Market Property
Located at 108 Adams Street, Bay City, Michigan
PM Environmental, Inc. Project No. 01-12077-0
Dated: June 16, 2020

Dear Mr. Lince:

Please find enclosed the Phase I Environmental Site Assessment for the subject property dated June 16, 2020 to the Michigan State Housing Development Authority.

It is our understanding that the information contained in the Phase I Environmental Site Assessment will be used by the Authority in considering proposed financing of residential development of the property and, furthermore, that the Authority may rely upon the Phase I Environmental Site Assessment as if it were issued to the Authority.

We **represent** that the attached is a true, correct, and complete copy of the Phase I Environmental Site Assessment for the above captioned property and that the report represents our professional opinion of the site as of this date and that we meet the definition of an Environmental Professional as defined in Section 312.10 of 40 CFR 312. We also **represent** that the Phase I Environmental Site Assessment including the evaluation, recommendations, and conclusions as of this date has been performed in conformance with the scope and limitations of the ASTM Practice E1527-13, ASTM Practice E 2600-15, and MSHDA's Environmental Review Requirements for 2020.

Sincerely,
PM ENVIRONMENTAL, INC.
PM Environmental, Inc.

PM Environmental, Inc.

Jackie Schafer
Regional Manager – Due Diligence

Peter S. Bosanic, P.E., EP
Principal

**Section 10.10: Copy of Environmental Professional Insurance
Certificates**



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
01/30/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Central, Inc. Southfield MI office 3000 Town Center Suite 3000 Southfield MI 48075 USA	CONTACT NAME:	
	PHONE (A/C. No. Ext): (866) 283-7122	FAX (A/C. No.): (800) 363-0105
INSURED PM Environmental, Inc. 3340 Ranger Road Lansing MI 48906 USA	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A: Great Northern Insurance Co.	20303
	INSURER B: Federal Insurance Company	20281
	INSURER C: Crum & Forster Specialty Insurance Co.	44520
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER: 570080392911

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
C	COMMERCIAL GENERAL LIABILITY ☒ CLAIMS-MADE ☒ OCCUR ☒ Prof. Liability \$2M-Claims Made ☒ Contractors Pollution GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:			EPK129798 SIR applies per policy terms & conditions	02/01/2020	02/01/2021	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$50,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 Contractors Pollution \$2,000,000
A	AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY			7358-30-24	02/01/2020	02/01/2021	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
C	UMBRELLA LIAB ☒ OCCUR ☒ EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION			EFX114442	02/01/2020	02/01/2021	EACH OCCURRENCE \$3,000,000 AGGREGATE \$3,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in Nh) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N Y N/A			2171745612	02/01/2020	02/01/2021	☒ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000
C	Env Prof (E&O)			EPK129798 SIR applies per policy terms & conditions	02/01/2020	02/01/2021	Prof. Liability \$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Evidence of Insurance - Informational purposes only.

CERTIFICATE HOLDER**CANCELLATION**PM Environmental Inc
3340 Ranger Road
Lansing MI 48906 USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Central, Inc.

Holder Identifier :

Certificate No : 570080392911

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED—AUTOMATIC STATUS WHEN REQUIRED BY WRITTEN CONTRACT OR WRITTEN AGREEMENT

This endorsement modifies insurance provided by the Coverage Part(s) checked below:

- ☐ All Coverage Parts or
☒ Only the following checked Coverage Part(s)

- ☒ COVERAGE PART A - COMMERCIAL GENERAL LIABILITY
N/A COVERAGE PART B - CONTRACTOR'S POLLUTION LIABILITY
N/A COVERAGE PART C - PROFESSIONAL LIABILITY
N/A COVERAGE PART D - SITE ENVIRONMENTAL LIABILITY
N/A COVERAGE PART E - PRODUCTS POLLUTION LIABILITY
N/A COVERAGE PART F - OTHER

Solely with respect to coverage afforded by the Coverage Part(s) checked above:

SECTION II – Who Is An Insured is amended to include as an additional insured any person or organization you are required to include as an additional insured on this Policy by written contract or written agreement in effect during this "policy period" and executed prior to the "occurrence" of any "bodily injury" or "property damage" but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by:

1. Your acts or omissions, or
2. The acts or omissions of those acting on your behalf.

Liability for the above acts or omissions includes the liability you are required to assume in a written contract or written agreement with an additional insured that is specifically related to "your work", provided that assumption of the additional insured's liability is permitted by law.

The insurance provided to the additional insured(s) under this endorsement is limited as follows:

1. In the event that the Limits of Insurance provided by this Policy exceed the Limits of Insurance required by the written contract or written agreement, the insurance provided by this endorsement shall be limited to the Limits of Insurance required by the written contract or written agreement. This endorsement shall not increase the Limits of Insurance stated in the Declarations.
2. Any coverage provided by this endorsement to an additional insured(s) shall be excess over any other valid and collectible insurance available to the additional insured whether primary, excess, contingent or on any other basis unless a written contract or written agreement specifically requires that this insurance apply on a primary and noncontributory basis.
3. With respect to the insurance afforded to the additional insured(s), the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, (other than service, maintenance or repairs) on the project to be performed by

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED—AUTOMATIC STATUS WHEN REQUIRED BY WRITTEN CONTRACT OR WRITTEN AGREEMENT

This endorsement modifies insurance provided by the Coverage Part(s) checked below:

- ☐ All Coverage Parts or
☒ Only the following checked Coverage Part(s)

- ☒ COVERAGE PART A - COMMERCIAL GENERAL LIABILITY
- N/A COVERAGE PART B - CONTRACTOR'S POLLUTION LIABILITY
- N/A COVERAGE PART C - PROFESSIONAL LIABILITY
- N/A COVERAGE PART D - SITE ENVIRONMENTAL LIABILITY
- N/A COVERAGE PART E - PRODUCTS POLLUTION LIABILITY
- N/A COVERAGE PART F - OTHER

Solely with respect to coverage afforded by the Coverage Part(s) checked above:

SECTION II – Who Is An Insured is amended to include as an additional insured any person or organization you are required to include as an additional insured on this Policy by written contract or written agreement in effect during this "policy period" and executed prior to the "occurrence" of any "bodily injury" or, "property damage" but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by:

1. Your acts or omissions, or
2. The acts or omissions of those acting on your behalf.

Liability for the above acts or omissions includes the liability you are required to assume in a written contract or written agreement with an additional insured that is specifically related to "your work", provided that assumption of the additional insured's liability is permitted by law.

The insurance provided to the additional insured(s) under this endorsement is limited as follows:

1. In the event that the Limits of Insurance provided by this Policy exceed the Limits of Insurance required by the written contract or written agreement, the insurance provided by this endorsement shall be limited to the Limits of Insurance required by the written contract or written agreement. This endorsement shall not increase the Limits of Insurance stated in the Declarations.
2. Any coverage provided by this endorsement to an additional insured(s) shall be excess over any other valid and collectible insurance available to the additional insured whether primary, excess, contingent or on any other basis unless a written contract or written agreement specifically requires that this insurance apply on a primary and noncontributory basis.
3. With respect to the insurance afforded to the additional insured(s), the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, (other than service, maintenance or repairs) on the project to be performed by

POLICY NUMBER: 000564370

COMMERCIAL GENERAL LIABILITY
CG20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Additional Insured Person(s) Or Organization(s)	Location And Description of Completed Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED—AUTOMATIC STATUS WHEN REQUIRED BY WRITTEN CONTRACT OR WRITTEN AGREEMENT

This endorsement modifies insurance provided by the Coverage Part(s) checked below:

- ☐ All Coverage Parts or
☒ Only the following checked Coverage Part(s)

- ☒ COVERAGE PART A - COMMERCIAL GENERAL LIABILITY
N/A COVERAGE PART B - CONTRACTOR'S POLLUTION LIABILITY
N/A COVERAGE PART C - PROFESSIONAL LIABILITY
N/A COVERAGE PART D - SITE ENVIRONMENTAL LIABILITY
N/A COVERAGE PART E - PRODUCTS POLLUTION LIABILITY
N/A COVERAGE PART F - OTHER

Solely with respect to coverage afforded by the Coverage Part(s) checked above:

SECTION II – Who Is An Insured is amended to include as an additional insured any person or organization you are required to include as an additional insured on this Policy by written contract or written agreement in effect during this "policy period" and executed prior to the "occurrence" of any "bodily injury" or "property damage" but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by:

1. Your acts or omissions, or
2. The acts or omissions of those acting on your behalf.

Liability for the above acts or omissions includes the liability you are required to assume in a written contract or written agreement with an additional insured that is specifically related to "your work", provided that assumption of the additional insured's liability is permitted by law.

The insurance provided to the additional insured(s) under this endorsement is limited as follows:

1. In the event that the Limits of Insurance provided by this Policy exceed the Limits of Insurance required by the written contract or written agreement, the insurance provided by this endorsement shall be limited to the Limits of Insurance required by the written contract or written agreement. This endorsement shall not increase the Limits of Insurance stated in the Declarations.
2. Any coverage provided by this endorsement to an additional insured(s) shall be excess over any other valid and collectible insurance available to the additional insured whether primary, excess, contingent or on any other basis unless a written contract or written agreement specifically requires that this insurance apply on a primary and noncontributory basis.
3. With respect to the insurance afforded to the additional insured(s), the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, (other than service, maintenance or repairs) on the project to be performed by

or on behalf of the additional insured(s) at the location of the covered operations, has been completed; or

- b. That portion of "your work" out of which the "bodily injury" or "property damage" arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project;

provided that item 3.a. and 3.b. above shall not apply if such coverage is required by written contract or written agreement in effect during this "policy period" and executed prior to the "occurrence" of any "bodily injury" or "property damage".

ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.

Includes copyrighted material of Insurance Services Office, Inc., with its permission.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

POLICY CHANGES

POLICY NUMBER 00056437-0	POLICY CHANGES EFFECTIVE 2/1/2013 12:01 AM Standard Time at the address of the Named Insured	COMPANY JAMES RIVER INSURANCE COMPANY
NAMED INSURED PM Environmental Inc		AUTHORIZED REPRESENTATIVE Richard J. Schnitzer
COVERAGE PARTS AFFECTED: ALL COVERAGE PARTS		

NOTICE OF CANCELLATION - DESIGNATED ENTITY

This endorsement modifies insurance provided under the following:

It is hereby agreed that the policy to which this endorsement is attached is amended as follows:

SCHEDULE

Name of Designated Person(s) or Organization(s)

to be determined and requested by insured for additional premium

CONDITIONS: Cancellation is amended to include the following:

If this policy is cancelled by us for any reason other than nonpayment of premium or at the request of the first Named Insured, we will mail or deliver written notice of cancellation at least 30 days before the effective date of the cancellation to the designated person(s) or organization(s) shown in the schedule above.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.



Authorized Representative Signature

Appendix B



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-1

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
0	ASPHALT		-	0.0	
0	CONCRETE				
2	CL- (Medium Stiff) SANDY CLAY (moist) Brown/Gray, medium-plasticity, trace gravel	SS-1 1.0 - 2.0'	-	0.0	
4			-	0.0	
4			-	0.0	
4			-	0.0	
6			-	0.0	
6	CL- (Stiff) SANDY CLAY (moist) Brown, low-plasticity, trace gravel		-	0.0	
8			-	0.0	
8			-	0.0	
10			-	0.0	
10			-	0.0	
12			-	0.0	
12			-	0.0	
14			-	0.0	
14			-	0.0	
16	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel		-	0.0	
16			-	0.0	
18			-	0.0	
18			-	0.0	
20			-	0.0	
20			-	0.0	

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-3

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
	ASPHALT			0.0	
	CONCRETE				
2	SP- (Loose) SAND (moist) Brown, fine, poorly graded	SS-1 1.0 - 2.0'		0.0	
	CL- (Medium Stiff) SANDY CLAY (moist) Brown/Gray, medium-plasticity, trace gravel			0.0	
4				0.0	
				0.0	
6				0.0	
				0.0	
8	CL- (Stiff) SANDY CLAY (moist) Brown/, low-plasticity, trace gravel	SS-2 6.5 - 7.5'		0.0	
				0.0	
10				0.0	
				0.0	
12				0.0	
				0.0	
14				0.0	
				0.0	
16	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel			0.0	
				0.0	
18				0.0	
				0.0	
20				0.0	

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-5

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
	ASPHALT			0.0	
	SC- (Loose) CLAYEY SAND (moist)			0.0	
2	Brown, fine, trace gravel, concrete, brick, wood and glass debris			0.0	
				0.0	
4				0.0	
		SS-1		0.0	
6	CL- (Stiff) SANDY CLAY (moist)	4.5 - 5.5'		0.0	
	Brown/Gray, low-plasticity, trace gravel			0.0	
8				0.0	
				0.0	
10				0.0	
				0.0	
12				0.0	
				0.0	
14				0.0	
				0.0	
16				0.0	
				0.0	
18	CL- (Stiff) CLAY (moist)			0.0	
	Gray, low-plasticity, trace gravel			0.0	
20					

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-6

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
	ASPHALT			0.7	
	CONCRETE				
2	CL- (Stiff) SANDY CLAY (moist) Brown/Gray, low-plasticity, trace gravel	SS-1 1.0 - 2.0'		1.6	
				0.0	
4				0.0	
				0.0	
6				0.0	
				0.0	
8				0.0	
				0.0	
		SS-2 8.5 - 9.5'		0.0	
10	CL- (Medium Stiff) CLAY (moist) Brown, medium-plasticity, trace gravel			0.0	
				0.0	
12				0.0	
				0.0	
14				0.0	
				0.0	
16				0.0	
				0.0	
18	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel			0.0	
				0.0	
20					

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-4

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
	ASPHALT			0.0	
	CONCRETE			0.0	
2	SC- (Loose) CLAYEY SAND (moist) Brown, fine, trace gravel, wood and brick debris	SS-1 1.0 - 2.0'		0.0	
4	CL- (Medium Stiff) SANDY CLAY (moist) Brown/Gray, medium-plasticity, trace gravel			0.0	
6	CL- (Stiff) SANDY CLAY (moist) Brown, low-plasticity, trace gravel			0.0	
8				0.0	
10				0.0	
12				0.0	
14	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel			0.0	
16				0.0	
18				0.0	
20				0.0	
				0.0	
				0.0	
				0.0	
				0.0	
				0.0	
				0.0	
				0.0	
				0.0	

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-2

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE		No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts PID (ppm)	
0	Ground Surface			
	ASPHALT		0.0	
	CONCRETE		0.0	
2	SP- (Loose) SAND (moist) Brown, fine, poorly graded	SS-1 10 - 20'	0.0	
	CL- (Medium Stiff) SANDY CLAY (moist) Brown, medium-plasticity, trace gravel		0.0	
4			0.0	
			0.0	
6		SS-2 6.0 - 7.0'	0.0	
	CL- (Stiff) SANDY CLAY (moist) Brown, low-plasticity, trace gravel		0.0	
8			0.0	
	CL- (Medium Stiff) SANDY CLAY (moist) Brown, medium-plasticity, trace gravel		0.0	
10			0.0	
			0.0	
12			0.0	
	CL- (Stiff) SANDY CLAY (moist) Brown, low-plasticity, trace gravel		0.0	
14			0.0	
			0.0	
16		SS-3 16.5 - 17.5'	0.0	
	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel		0.0	
18			0.0	
			0.0	
20			0.0	

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Boring Log .

Project No.: 01-12077-1-003

Boring No.: SB-7

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE			SAMPLE		No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
	ASPHALT			0.0	
	CONCRETE			0.0	
2				0.0	
				0.0	
4	CL- (Stiff) SANDY CLAY (moist) Brown, low-plasticity, trace gravel	SS-1 4.0 - 5.0'		0.0	
				0.0	
6				0.0	
				0.0	
8				0.0	
				0.0	
10				0.0	
				0.0	
12				0.0	
				0.0	
14	CL- (Stiff) CLAY (moist) Brown, low-plasticity, trace gravel	SS-2 12.5 - 13.5'		0.0	
				0.0	
16				0.0	
				0.0	
18				0.0	
				0.0	
20					

Completion Notes: EOB @ 20' bgs.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted.



Soil Gas Log: .

Project No.: 01-12077-1-003

Well No.: SB-8/SG-1

Project Name: Bay City Market Property

Date Drilled: 7/6/2020

Facility ID#:

Drill Rig: 6712 DT Geoprobe

Logged By: Danielle Wilcox

Sampling Method: Grab

SUBSURFACE PROFILE		SAMPLE		Soil Gas Well Installed
Depth (ft.)	Description and Comments	Blow Counts	PID (ppm)	
0	Ground Surface			Grout Air Sampling Point (5.0') Sand 1/8" ID PolyTubing Ground Surface
	ASPHALT	-	0.0	
	CONCRETE	-	0.0	
2	CL- (Stiff) SANDY CLAY (moist) Brown/Gray, low-plasticity, trace gravel	-	0.0	
4		-	0.0	
6		-	0.0	
8		-	0.0	
10		-	0.0	
10.5		SS-1	0.0	
11.5		10.5 - 11.5'	0.0	
12	CL- (Stiff) SANDY CLAY (moist) Brown, medium-plasticity, trace gravel	-	0.0	
14		-	0.0	
16	CL- (Stiff) CLAY (moist) Gray, low-plasticity, trace gravel	-	0.0	
18		-	0.0	
20		-	0.0	

Completion Notes: EOB @ 20' bgs.

1. Boring backfilled with natural soils unless otherwise noted

Appendix C



Analytical Laboratory Report

Report ID: S15459.01(01)
Generated on 07/10/2020

Report to

Attention: Jenna MacDonald
PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: 248-206-1640 FAX:
Email: MacDonald@pmenv.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:

John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S15459.01-S15459.13
Project: 01-12077-1-0003
Collected Date(s): 07/06/2020
Submitted Date/Time: 07/07/2020 13:45
Sampled by: Danielle Wilcox
P.O. #: 01-12077-1-0003

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Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001

Qualifier Descriptions

Qualifier	Description
I	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2011
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8082A	SW 846 Method 8082A Revision 1 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007



Analytical Laboratory Report

Sample Summary (13 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S15459.01	SB-1 1-2'	Soil	07/06/20 12:39
S15459.02	SB-2 1-2'	Soil	07/06/20 12:08
S15459.03	SB-2 6-7'	Soil	07/06/20 12:13
S15459.04	SB-2 16.5-17.5'	Soil	07/06/20 12:18
S15459.05	SB-3 1-2'	Soil	07/06/20 13:15
S15459.06	SB-3 6.5-7.5'	Soil	07/06/20 13:20
S15459.07	SB-4 1-2'	Soil	07/06/20 14:02
S15459.08	SB-5 4.5-5.5'	Soil	07/06/20 11:42
S15459.09	SB-6 1-2'	Soil	07/06/20 15:43
S15459.10	SB-6 8.5-9.5'	Soil	07/06/20 15:48
S15459.11	SB-7 4-5'	Soil	07/06/20 16:15
S15459.12	SB-7 12.5-13.5'	Soil	07/06/20 16:20
S15459.13	SB-8 10.5-11.5'	Soil	07/06/20 11:15



Analytical Laboratory Report

Lab Sample ID: S15459.01
Sample Tag: SB-1 1-2'
Collected Date/Time: 07/06/2020 12:39
Matrix: Soil
COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	18.548/18	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	82	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:31, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.76	0.30		mg/kg	248	7440-38-2	
Barium	93.2	1.0		mg/kg	248	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	248	7440-43-9	
Chromium	11.8	0.50		mg/kg	248	7440-47-3	
Copper	6.58	0.50		mg/kg	248	7440-50-8	
Lead	5.94	0.30		mg/kg	248	7439-92-1	
Selenium	Not detected	0.40		mg/kg	248	7782-49-2	
Silver	Not detected	0.20		mg/kg	248	7440-22-4	
Zinc	14.2	0.50		mg/kg	248	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:15, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	60	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 15:57, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.01 (continued)

Sample Tag: SB-1 1-2'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 21:00, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 20:24, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	70.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	70.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	70.1	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	70.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	70.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	70.1	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	70.1	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	70.1	75-71-8	
Chloromethane	Not detected	400		ug/kg	70.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	70.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	70.1	74-83-9	
Chloroethane	Not detected	400		ug/kg	70.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	70.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	70.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	70.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	70.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	70.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	70.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	70.1	109-99-9	
Chloroform	Not detected	70		ug/kg	70.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	70.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	70.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	70.1	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	70.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	70.1	56-23-5	
Benzene	Not detected	70		ug/kg	70.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	70.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	70.1	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.01 (continued)

Sample Tag: SB-1 1-2'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 20:24, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	70		ug/kg	70.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	70.1	75-27-4	
Dibromomethane	Not detected	400		ug/kg	70.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	70.1	10061-01-5	
Toluene	Not detected	70		ug/kg	70.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	70.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	70.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	70.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	70.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	70.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	70.1	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	70.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	70.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	70.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	70.1		
o-Xylene	Not detected	70		ug/kg	70.1	95-47-6	
Styrene	Not detected	70		ug/kg	70.1	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	70.1	98-82-8	
Bromoform	Not detected	100		ug/kg	70.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	70.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	70.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	70.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	70.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	70.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	70.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	70.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	70.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	70.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	70.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	70.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	70.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	70.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	70.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	70.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	70.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	460		ug/kg	70.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	460		ug/kg	70.1	87-61-6	
Naphthalene	Not detected	400		ug/kg	70.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	70.1	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.02

Sample Tag: SB-2 1-2'

Collected Date/Time: 07/06/2020 12:08

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	19.176/19	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:33, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.89	0.30		mg/kg	235	7440-38-2	
Barium	52.0	1.0		mg/kg	235	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	235	7440-43-9	
Chromium	9.39	0.50		mg/kg	235	7440-47-3	
Copper	7.39	0.50		mg/kg	235	7440-50-8	
Lead	5.91	0.30		mg/kg	235	7439-92-1	
Selenium	Not detected	0.40		mg/kg	235	7782-49-2	
Silver	Not detected	0.20		mg/kg	235	7440-22-4	
Zinc	15.8	0.50		mg/kg	235	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:17, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	0.061	0.050		mg/kg	59	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 16:09, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.02 (continued)

Sample Tag: SB-2 1-2'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 21:18, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 20:43, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	67.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	67.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	67.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	67.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	67.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	67.1	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	67.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	67.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	67.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	67.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	67.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	67.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	67.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	67.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	67.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	67.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	67.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	67.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	67.1	109-99-9	
Chloroform	Not detected	70		ug/kg	67.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	67.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	67.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	67.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	67.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	67.1	56-23-5	
Benzene	Not detected	70		ug/kg	67.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	67.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	67.1	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.02 (continued)

Sample Tag: SB-2 1-2'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 20:43, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	70		ug/kg	67.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	67.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	67.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	67.1	10061-01-5	
Toluene	Not detected	70		ug/kg	67.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	67.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	67.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	67.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	67.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	67.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	67.1	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	67.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	67.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	67.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	67.1		
o-Xylene	Not detected	70		ug/kg	67.1	95-47-6	
Styrene	Not detected	70		ug/kg	67.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	67.1	98-82-8	
Bromoform	Not detected	100		ug/kg	67.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	67.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	67.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	67.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	67.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	67.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	67.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	67.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	67.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	67.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	67.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	67.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	67.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	67.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	67.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	67.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	67.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	440		ug/kg	67.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	440		ug/kg	67.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	67.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	67.1	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.03

Sample Tag: SB-2 6-7'

Collected Date/Time: 07/06/2020 12:13

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	14.001/14	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:35, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	4.18	0.30		mg/kg	220	7439-92-1	

Method: SW6020A, Run Date: 07/09/20 13:00, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.44	0.30		mg/kg	440	7440-38-2	
Barium	62.3	1.0		mg/kg	440	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	440	7440-43-9	
Chromium	9.95	0.50		mg/kg	440	7440-47-3	
Copper	11.1	0.50		mg/kg	440	7440-50-8	
Selenium	0.88	0.40		mg/kg	440	7782-49-2	
Silver	Not detected	0.20		mg/kg	440	7440-22-4	
Zinc	18.6	0.50		mg/kg	440	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:19, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	55	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 16:21, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.03 (continued)

Sample Tag: SB-2 6-7'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 21:36, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:02, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.1	107-13-1	
2-Butanone (MEK)	Not detected	920		ug/kg	61.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.1	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.1	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.1	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.1	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	61.1	109-99-9	
Chloroform	Not detected	60		ug/kg	61.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.1	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.1	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.1	56-23-5	
Benzene	Not detected	60		ug/kg	61.1	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.1	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.1	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.03 (continued)

Sample Tag: SB-2 6-7'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:02, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	60		ug/kg	61.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.1	10061-01-5	
Toluene	Not detected	60		ug/kg	61.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.1	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.1	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.1	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	61.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.1	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.1		
o-Xylene	Not detected	60		ug/kg	61.1	95-47-6	
Styrene	Not detected	60		ug/kg	61.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.1	98-82-8	
Bromoform	Not detected	100		ug/kg	61.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.1	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.1	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.1	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.1	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	61.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	61.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.1	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.04

Sample Tag: SB-2 16.5-17.5'

Collected Date/Time: 07/06/2020 12:18

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	12.908/12	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	92	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:36, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	3.03	0.30		mg/kg	218	7439-92-1	

Method: SW6020A, Run Date: 07/09/20 13:02, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2.17	0.30		mg/kg	436	7440-38-2	
Barium	18.7	1.0		mg/kg	436	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	436	7440-43-9	
Chromium	9.56	0.50		mg/kg	436	7440-47-3	
Copper	8.67	0.50		mg/kg	436	7440-50-8	
Selenium	0.68	0.40		mg/kg	436	7782-49-2	
Silver	Not detected	0.20		mg/kg	436	7440-22-4	
Zinc	18.6	0.50		mg/kg	436	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:21, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	55	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 16:33, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.04 (continued)

Sample Tag: SB-2 16.5-17.5'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 21:55, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:20, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	54.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	54.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	54.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	54.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	54.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	54.9	107-13-1	
2-Butanone (MEK)	Not detected	820		ug/kg	54.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	54.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	54.9	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	54.9	75-01-4	
Bromomethane	Not detected	200		ug/kg	54.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	54.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	54.9	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	54.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	54.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	54.9	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	54.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	54.9	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	54.9	109-99-9	
Chloroform	Not detected	50		ug/kg	54.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	54.9	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	54.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	54.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	54.9	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	54.9	56-23-5	
Benzene	Not detected	50		ug/kg	54.9	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	54.9	107-06-2	
Trichloroethene	Not detected	50		ug/kg	54.9	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.04 (continued)

Sample Tag: SB-2 16.5-17.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:20, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	50		ug/kg	54.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	54.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	54.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	54.9	10061-01-5	
Toluene	Not detected	50		ug/kg	54.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	54.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	54.9	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	54.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	54.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	54.9	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	54.9	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	54.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	54.9	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	54.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	54.9		
o-Xylene	Not detected	50		ug/kg	54.9	95-47-6	
Styrene	Not detected	50		ug/kg	54.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	54.9	98-82-8	
Bromoform	Not detected	100		ug/kg	54.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	54.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	54.9	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	54.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	54.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	54.9	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	54.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	54.9	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	54.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	54.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	54.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	54.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	54.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	54.9	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	54.9	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	54.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	54.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	360		ug/kg	54.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	360		ug/kg	54.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	54.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	54.9	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.05
Sample Tag: SB-3 1-2'
Collected Date/Time: 07/06/2020 13:15
Matrix: Soil
COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	16.643/16	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/09/20 15:48, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.95	0.30		mg/kg	238	7440-38-2	
Barium	30.7	1.0		mg/kg	238	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	238	7440-43-9	
Chromium	7.26	0.50		mg/kg	238	7440-47-3	
Copper	6.78	0.50		mg/kg	238	7440-50-8	
Lead	8.61	0.30		mg/kg	238	7439-92-1	
Selenium	0.41	0.40		mg/kg	238	7782-49-2	
Silver	Not detected	0.20		mg/kg	238	7440-22-4	
Zinc	16.2	0.50		mg/kg	238	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:23, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	59	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 16:45, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.05 (continued)

Sample Tag: SB-3 1-2'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 22:13, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:38, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	48.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	48.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	48.1	74-88-4	
Carbon disulfide	Not detected	200		ug/kg	48.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	48.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	48.1	107-13-1	
2-Butanone (MEK)	Not detected	720		ug/kg	48.1	78-93-3	
Dichlorodifluoromethane	Not detected	200		ug/kg	48.1	75-71-8	
Chloromethane	Not detected	200		ug/kg	48.1	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	48.1	75-01-4	
Bromomethane	Not detected	200		ug/kg	48.1	74-83-9	
Chloroethane	Not detected	200		ug/kg	48.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	48.1	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	48.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	48.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	48.1	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	48.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	48.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	48.1	109-99-9	
Chloroform	Not detected	50		ug/kg	48.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	48.1	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	48.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	2,000		ug/kg	48.1	108-10-1	
2-Hexanone	Not detected	2,000		ug/kg	48.1	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	48.1	56-23-5	
Benzene	Not detected	50		ug/kg	48.1	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	48.1	107-06-2	
Trichloroethene	Not detected	50		ug/kg	48.1	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.05 (continued)

Sample Tag: SB-3 1-2'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:38, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	50		ug/kg	48.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	48.1	75-27-4	
Dibromomethane	Not detected	200		ug/kg	48.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	48.1	10061-01-5	
Toluene	Not detected	50		ug/kg	48.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	48.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	48.1	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	48.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	48.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	48.1	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	48.1	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	48.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	48.1	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	48.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	48.1		
o-Xylene	Not detected	50		ug/kg	48.1	95-47-6	
Styrene	Not detected	50		ug/kg	48.1	100-42-5	
Isopropylbenzene	Not detected	200		ug/kg	48.1	98-82-8	
Bromoform	Not detected	100		ug/kg	48.1	75-25-2	
1,1,1,2-Tetrachloroethane	Not detected	50		ug/kg	48.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	48.1	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	48.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	48.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	48.1	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	48.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	48.1	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	48.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	48.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	48.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	48.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	48.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	48.1	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	48.1	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	48.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	200		ug/kg	48.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	320		ug/kg	48.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	320		ug/kg	48.1	87-61-6	
Naphthalene	Not detected	200		ug/kg	48.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	48.1	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.06

Sample Tag: SB-3 6.5-7.5'

Collected Date/Time: 07/06/2020 13:20

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	16.868/16	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 13:05, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Selenium	0.72	0.40		mg/kg	476	7782-49-2	

Method: SW6020A, Run Date: 07/09/20 12:40, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.63	0.30		mg/kg	238	7440-38-2	
Barium	29.2	1.0		mg/kg	238	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	238	7440-43-9	
Chromium	6.09	0.50		mg/kg	238	7440-47-3	
Copper	6.63	0.50		mg/kg	238	7440-50-8	
Lead	2.92	0.30		mg/kg	238	7439-92-1	
Silver	Not detected	0.20		mg/kg	238	7440-22-4	
Zinc	10.9	0.50		mg/kg	238	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:24, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	59	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 16:57, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.06 (continued)

Sample Tag: SB-3 6.5-7.5'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 22:32, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:57, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	63.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	63.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	63.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	63.3	107-13-1	
2-Butanone (MEK)	Not detected	950		ug/kg	63.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	63.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	63.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	63.3	75-01-4	
Bromomethane	Not detected	300		ug/kg	63.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	63.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	63.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	63.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	63.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	63.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	63.3	109-99-9	
Chloroform	Not detected	60		ug/kg	63.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	63.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	63.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	63.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	63.3	56-23-5	
Benzene	Not detected	60		ug/kg	63.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	63.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	63.3	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.06 (continued)

Sample Tag: SB-3 6.5-7.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 21:57, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	60		ug/kg	63.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	63.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	63.3	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63.3	10061-01-5	
Toluene	Not detected	60		ug/kg	63.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	63.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	63.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	63.3	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	63.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	63.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63.3	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	63.3	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	63.3		
o-Xylene	Not detected	60		ug/kg	63.3	95-47-6	
Styrene	Not detected	60		ug/kg	63.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	63.3	98-82-8	
Bromoform	Not detected	100		ug/kg	63.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	63.3	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	63.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	63.3	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	63.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	63.3	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	63.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	63.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	63.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	63.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	63.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	63.3	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	63.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	63.3	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	63.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	63.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	63.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.07

Sample Tag: SB-4 1-2'

Collected Date/Time: 07/06/2020 14:02

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	17.514/17	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:42, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.66	0.30		mg/kg	218	7440-38-2	
Barium	52.1	1.0		mg/kg	218	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	218	7440-43-9	
Chromium	9.08	0.50		mg/kg	218	7440-47-3	
Copper	8.43	0.50		mg/kg	218	7440-50-8	
Lead	9.52	0.30		mg/kg	218	7439-92-1	
Selenium	0.84	0.40		mg/kg	218	7782-49-2	
Silver	Not detected	0.20		mg/kg	218	7440-22-4	
Zinc	30.5	0.50		mg/kg	218	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:26, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	0.059	0.050		mg/kg	56	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 17:09, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.07 (continued)

Sample Tag: SB-4 1-2'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 22:50, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 22:16, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	58.3	60-29-7	
Acetone	Not detected	1,000		ug/kg	58.3	67-64-1	
Methyl iodide	Not detected	100		ug/kg	58.3	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	58.3	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	58.3	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	58.3	107-13-1	
2-Butanone (MEK)	Not detected	870		ug/kg	58.3	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	58.3	75-71-8	
Chloromethane	Not detected	300		ug/kg	58.3	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	58.3	75-01-4	
Bromomethane	Not detected	200		ug/kg	58.3	74-83-9	
Chloroethane	Not detected	300		ug/kg	58.3	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	58.3	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	58.3	75-35-4	
Methylene chloride	Not detected	100		ug/kg	58.3	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	58.3	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	58.3	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	58.3	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	58.3	109-99-9	
Chloroform	Not detected	60		ug/kg	58.3	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	58.3	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	58.3	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	58.3	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	58.3	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	58.3	56-23-5	
Benzene	Not detected	60		ug/kg	58.3	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	58.3	107-06-2	
Trichloroethene	Not detected	60		ug/kg	58.3	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.07 (continued)

Sample Tag: SB-4 1-2'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/08/20 22:16, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	60		ug/kg	58.3	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	58.3	75-27-4	
Dibromomethane	Not detected	300		ug/kg	58.3	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	58.3	10061-01-5	
Toluene	Not detected	60		ug/kg	58.3	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	58.3	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	58.3	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	58.3	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	58.3	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	58.3	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	58.3	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	58.3	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	58.3	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	58.3	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	58.3		
o-Xylene	Not detected	60		ug/kg	58.3	95-47-6	
Styrene	Not detected	60		ug/kg	58.3	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	58.3	98-82-8	
Bromoform	Not detected	100		ug/kg	58.3	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	58.3	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	58.3	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	58.3	103-65-1	
Bromobenzene	Not detected	100		ug/kg	58.3	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	58.3	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	58.3	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	58.3	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	58.3	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	58.3	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	58.3	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	58.3	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	58.3	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	58.3	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	58.3	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	58.3	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	58.3	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	58.3	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	58.3	87-61-6	
Naphthalene	Not detected	300		ug/kg	58.3	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	58.3	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.08
Sample Tag: SB-5 4.5-5.5'
Collected Date/Time: 07/06/2020 11:42
Matrix: Soil
COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	17.849/17	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 14:20, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Selenium	1.18	0.40		mg/kg	494	7782-49-2	

Method: SW6020A, Run Date: 07/09/20 12:44, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	4.18	0.30		mg/kg	247	7440-38-2	
Barium	78.8	1.0		mg/kg	247	7440-39-3	
Cadmium	0.34	0.20		mg/kg	247	7440-43-9	
Chromium	10.5	0.50		mg/kg	247	7440-47-3	
Copper	26.8	0.50		mg/kg	247	7440-50-8	
Lead	131	0.30		mg/kg	247	7439-92-1	
Silver	Not detected	0.20		mg/kg	247	7440-22-4	
Zinc	149	0.50		mg/kg	247	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:36, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	9.667	0.605		mg/kg	6039	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 17:21, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.08 (continued)

Sample Tag: SB-5 4.5-5.5'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/09/20 02:30, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	400	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	1,400	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	1,100	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	2,000	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	2,100	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	700	300		ug/kg	10	191-24-2	
Chrysene	1,500	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	3,000	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	600	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	2,300	300		ug/kg	10	85-01-8	
Pyrene	3,000	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 07:01, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	67.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	67.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	67.6	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	67.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	67.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	67.6	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	67.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	67.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	67.6	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	67.6	75-01-4	
Bromomethane	Not detected	300		ug/kg	67.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	67.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	67.6	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	67.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	67.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	67.6	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	67.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	67.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	67.6	109-99-9	
Chloroform	Not detected	70		ug/kg	67.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	67.6	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	67.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	67.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	67.6	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	67.6	56-23-5	
Benzene	Not detected	70		ug/kg	67.6	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	67.6	107-06-2	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.



Analytical Laboratory Report

Lab Sample ID: S15459.08 (continued)

Sample Tag: SB-5 4.5-5.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 07:01, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichloroethene	Not detected	70		ug/kg	67.6	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	67.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	67.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	67.6	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	67.6	10061-01-5	
Toluene	Not detected	70		ug/kg	67.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	67.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	67.6	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	67.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	67.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	67.6	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	67.6	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	67.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	67.6	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	67.6	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	67.6		
o-Xylene	Not detected	70		ug/kg	67.6	95-47-6	
Styrene	Not detected	70		ug/kg	67.6	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	67.6	98-82-8	
Bromoform	Not detected	100		ug/kg	67.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	67.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	67.6	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	67.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	67.6	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	67.6	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	67.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	67.6	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	67.6	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	67.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	67.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	67.6	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	67.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	67.6	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	67.6	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	67.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	67.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	450		ug/kg	67.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	450		ug/kg	67.6	87-61-6	
Naphthalene	Not detected	300		ug/kg	67.6	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	67.6	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.09

Sample Tag: SB-6 1-2'

Collected Date/Time: 07/06/2020 15:43

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	14.227/14	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	68	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:45, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	5.39	0.30		mg/kg	300	7439-92-1	

Method: SW6020A, Run Date: 07/09/20 13:07, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.85	0.30		mg/kg	600	7440-38-2	
Barium	46.5	1.0		mg/kg	600	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	600	7440-43-9	
Chromium	11.3	0.50		mg/kg	600	7440-47-3	
Copper	12.8	0.50		mg/kg	600	7440-50-8	
Selenium	0.87	0.40		mg/kg	600	7782-49-2	
Silver	Not detected	0.20		mg/kg	600	7440-22-4	
Zinc	24.4	0.50		mg/kg	600	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	74	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 17:32, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.09 (continued)

Sample Tag: SB-6 1-2'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 23:08, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:17, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	400		ug/kg	95.9	60-29-7	
Acetone	Not detected	2,000		ug/kg	95.9	67-64-1	
Methyl iodide	Not detected	200		ug/kg	95.9	74-88-4	
Carbon disulfide	Not detected	500		ug/kg	95.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	400		ug/kg	95.9	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	95.9	107-13-1	
2-Butanone (MEK)	Not detected	1,400		ug/kg	95.9	78-93-3	
Dichlorodifluoromethane	Not detected	500		ug/kg	95.9	75-71-8	
Chloromethane	Not detected	500		ug/kg	95.9	74-87-3	
Vinyl chloride	Not detected	100		ug/kg	95.9	75-01-4	
Bromomethane	Not detected	400		ug/kg	95.9	74-83-9	
Chloroethane	Not detected	500		ug/kg	95.9	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	95.9	75-69-4	
1,1-Dichloroethene	Not detected	100		ug/kg	95.9	75-35-4	
Methylene chloride	Not detected	200		ug/kg	95.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	100		ug/kg	95.9	156-60-5	
1,1-Dichloroethane	Not detected	100		ug/kg	95.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	100		ug/kg	95.9	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	95.9	109-99-9	
Chloroform	Not detected	100		ug/kg	95.9	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	95.9	74-97-5	
1,1,1-Trichloroethane	Not detected	100		ug/kg	95.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	5,000		ug/kg	95.9	108-10-1	
2-Hexanone	Not detected	5,000		ug/kg	95.9	591-78-6	
Carbon tetrachloride	Not detected	100		ug/kg	95.9	56-23-5	
Benzene	Not detected	100		ug/kg	95.9	71-43-2	
1,2-Dichloroethane	Not detected	100		ug/kg	95.9	107-06-2	
Trichloroethene	Not detected	100		ug/kg	95.9	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.09 (continued)

Sample Tag: SB-6 1-2'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:17, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	100		ug/kg	95.9	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	95.9	75-27-4	
Dibromomethane	Not detected	500		ug/kg	95.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	100		ug/kg	95.9	10061-01-5	
Toluene	Not detected	100		ug/kg	95.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	100		ug/kg	95.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	100		ug/kg	95.9	79-00-5	
Tetrachloroethene	Not detected	100		ug/kg	95.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	100		ug/kg	95.9	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	95.9	124-48-1	
1,2-Dibromoethane	Not detected	40		ug/kg	95.9	106-93-4	M
Chlorobenzene	Not detected	100		ug/kg	95.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	95.9	630-20-6	
Ethylbenzene	Not detected	100		ug/kg	95.9	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	95.9		
o-Xylene	Not detected	100		ug/kg	95.9	95-47-6	
Styrene	Not detected	100		ug/kg	95.9	100-42-5	
Isopropylbenzene	Not detected	500		ug/kg	95.9	98-82-8	
Bromoform	Not detected	200		ug/kg	95.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	100		ug/kg	95.9	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	95.9	96-18-4	
n-Propylbenzene	Not detected	100		ug/kg	95.9	103-65-1	
Bromobenzene	Not detected	200		ug/kg	95.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	100		ug/kg	95.9	108-67-8	
tert-Butylbenzene	Not detected	100		ug/kg	95.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	100		ug/kg	95.9	95-63-6	
sec-Butylbenzene	Not detected	100		ug/kg	95.9	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	95.9	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	95.9	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	95.9	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	95.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	100		ug/kg	95.9	526-73-8	
n-Butylbenzene	Not detected	100		ug/kg	95.9	104-51-8	
Hexachloroethane	Not detected	600		ug/kg	95.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	500		ug/kg	95.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	630		ug/kg	95.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	630		ug/kg	95.9	87-61-6	
Naphthalene	Not detected	500		ug/kg	95.9	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	95.9	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.10

Sample Tag: SB-6 8.5-9.5'

Collected Date/Time: 07/06/2020 15:48

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	07/09/20 12:05	JRH	
Extraction, PCB*	Completed	SW3546	07/07/20 23:00	PW	
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	16.144/16	SW5035A	07/08/20 09:35	JLS	
Mercury Digestion	Completed	SW7471B	07/09/20 09:40	JRH	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Metals

Method: SW6020A, Run Date: 07/09/20 12:47, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	3.19	0.30		mg/kg	226	7439-92-1	

Method: SW6020A, Run Date: 07/09/20 13:09, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2.18	0.30		mg/kg	452	7440-38-2	
Barium	29.0	1.0		mg/kg	452	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	452	7440-43-9	
Chromium	7.72	0.50		mg/kg	452	7440-47-3	
Copper	7.94	0.50		mg/kg	452	7440-50-8	
Selenium	0.64	0.40		mg/kg	452	7782-49-2	
Silver	Not detected	0.20		mg/kg	452	7440-22-4	
Zinc	16.2	0.50		mg/kg	452	7440-66-6	

Method: SW7471B, Run Date: 07/09/20 13:40, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	55	7439-97-6	

Organics - PCBs/Pesticides

PCB List, Method: SW8082A, Run Date: 07/08/20 15:52, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	330		ug/kg	1	12674-11-2	
PCB-1242	Not detected	330		ug/kg	1	53469-21-9	
PCB-1221	Not detected	330		ug/kg	1	11104-28-2	
PCB-1232	Not detected	330		ug/kg	1	11141-16-5	
PCB-1248	Not detected	330		ug/kg	1	12672-29-6	
PCB-1254	Not detected	330		ug/kg	1	11097-69-1	
PCB-1260	Not detected	330		ug/kg	1	11096-82-5	



Analytical Laboratory Report

Lab Sample ID: S15459.10 (continued)

Sample Tag: SB-6 8.5-9.5'

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 23:27, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:36, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	59.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	59.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	59.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	59.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	59.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	59.4	107-13-1	
2-Butanone (MEK)	Not detected	890		ug/kg	59.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	59.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	59.4	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	59.4	75-01-4	
Bromomethane	Not detected	200		ug/kg	59.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	59.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	59.4	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	59.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	59.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	59.4	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	59.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	59.4	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	59.4	109-99-9	
Chloroform	Not detected	60		ug/kg	59.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	59.4	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	59.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	59.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	59.4	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	59.4	56-23-5	
Benzene	Not detected	60		ug/kg	59.4	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	59.4	107-06-2	
Trichloroethene	Not detected	60		ug/kg	59.4	79-01-6	



Analytical Laboratory Report

Lab Sample ID: S15459.10 (continued)

Sample Tag: SB-6 8.5-9.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:36, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichloropropane	Not detected	60		ug/kg	59.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	59.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	59.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	59.4	10061-01-5	
Toluene	Not detected	60		ug/kg	59.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	59.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	59.4	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	59.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	59.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	59.4	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	59.4	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	59.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	59.4	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	59.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	59.4		
o-Xylene	Not detected	60		ug/kg	59.4	95-47-6	
Styrene	Not detected	60		ug/kg	59.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	59.4	98-82-8	
Bromoform	Not detected	100		ug/kg	59.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	59.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	59.4	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	59.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	59.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	59.4	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	59.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	59.4	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	59.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	59.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	59.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	59.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	59.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	59.4	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	59.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	59.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	59.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	390		ug/kg	59.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	390		ug/kg	59.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	59.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	59.4	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.11

Sample Tag: SB-7 4-5'

Collected Date/Time: 07/06/2020 16:15

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	18.132/18	SW5035A	07/08/20 09:35	JLS	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/08/20 23:45, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:55, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.7	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.7	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.7	107-13-1	
2-Butanone (MEK)	Not detected	910		ug/kg	60.7	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.7	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.7	74-87-3	



Analytical Laboratory Report

Lab Sample ID: S15459.11 (continued)

Sample Tag: SB-7 4-5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:55, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Vinyl chloride	Not detected	60		ug/kg	60.7	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.7	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.7	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.7	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.7	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	60.7	109-99-9	
Chloroform	Not detected	60		ug/kg	60.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.7	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.7	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.7	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.7	56-23-5	
Benzene	Not detected	60		ug/kg	60.7	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.7	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.7	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.7	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.7	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.7	10061-01-5	
Toluene	Not detected	60		ug/kg	60.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.7	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.7	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.7	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	60.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.7	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	60.7	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	60.7		
o-Xylene	Not detected	60		ug/kg	60.7	95-47-6	
Styrene	Not detected	60		ug/kg	60.7	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	60.7	98-82-8	
Bromoform	Not detected	100		ug/kg	60.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.7	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	60.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.7	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.7	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.7	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	60.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	60.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.7	106-46-7	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.11 (continued)

Sample Tag: SB-7 4-5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 02:55, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.7	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	60.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.7	87-61-6	
Naphthalene	Not detected	300		ug/kg	60.7	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	60.7	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S15459.12

Sample Tag: SB-7 12.5-13.5'

Collected Date/Time: 07/06/2020 16:20

Matrix: Soil

COC Reference: 116515

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	15.153/15	SW5035A	07/08/20 09:35	JLS	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/09/20 00:04, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:13, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.6	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.6	107-13-1	
2-Butanone (MEK)	Not detected	910		ug/kg	60.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.6	74-87-3	



Analytical Laboratory Report

Lab Sample ID: S15459.12 (continued)

Sample Tag: SB-7 12.5-13.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:13, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Vinyl chloride	Not detected	60		ug/kg	60.6	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.6	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.6	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	60.6	109-99-9	
Chloroform	Not detected	60		ug/kg	60.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.6	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.6	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.6	56-23-5	
Benzene	Not detected	60		ug/kg	60.6	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.6	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.6	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.6	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.6	10061-01-5	
Toluene	Not detected	60		ug/kg	60.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.6	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.6	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.6	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	60.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.6	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	60.6	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	60.6		
o-Xylene	Not detected	60		ug/kg	60.6	95-47-6	
Styrene	Not detected	60		ug/kg	60.6	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	60.6	98-82-8	
Bromoform	Not detected	100		ug/kg	60.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.6	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	60.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.6	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.6	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.6	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	60.6	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	60.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.6	106-46-7	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.12 (continued)

Sample Tag: SB-7 12.5-13.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:13, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.6	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	60.6	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.6	87-61-6	
Naphthalene	Not detected	300		ug/kg	60.6	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	60.6	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S15459.13
Sample Tag: SB-8 10.5-11.5'
Collected Date/Time: 07/06/2020 11:15
Matrix: Soil
COC Reference: 116587

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
PNA Extraction*	Completed	SW3546	07/07/20 23:00	PTW	
Sample wt. (g) / Methanol (ml)*	16.644/16	SW5035A	07/08/20 09:35	JLS	

Inorganics

Method: SM2540B, Run Date: 07/08/20 16:58, Analyst: DJB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	91	1		%	1		

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 07/09/20 00:22, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:34, Analyst: JML

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	57.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	57.8	67-64-1	
Methyl iodide	Not detected	100		ug/kg	57.8	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	57.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	57.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	57.8	107-13-1	
2-Butanone (MEK)	Not detected	870		ug/kg	57.8	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	57.8	75-71-8	
Chloromethane	Not detected	300		ug/kg	57.8	74-87-3	



Analytical Laboratory Report

Lab Sample ID: S15459.13 (continued)

Sample Tag: SB-8 10.5-11.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:34, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Vinyl chloride	Not detected	60		ug/kg	57.8	75-01-4	
Bromomethane	Not detected	200		ug/kg	57.8	74-83-9	
Chloroethane	Not detected	300		ug/kg	57.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	57.8	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	57.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	57.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	57.8	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	57.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	57.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	57.8	109-99-9	
Chloroform	Not detected	60		ug/kg	57.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	57.8	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	57.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	57.8	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	57.8	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	57.8	56-23-5	
Benzene	Not detected	60		ug/kg	57.8	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	57.8	107-06-2	
Trichloroethene	Not detected	60		ug/kg	57.8	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	57.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	57.8	75-27-4	
Dibromomethane	Not detected	300		ug/kg	57.8	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	57.8	10061-01-5	
Toluene	Not detected	60		ug/kg	57.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	57.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	57.8	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	57.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	57.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	57.8	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	57.8	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	57.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	57.8	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	57.8	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	57.8		
o-Xylene	Not detected	60		ug/kg	57.8	95-47-6	
Styrene	Not detected	60		ug/kg	57.8	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	57.8	98-82-8	
Bromoform	Not detected	100		ug/kg	57.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	57.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	57.8	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	57.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	57.8	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	57.8	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	57.8	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	57.8	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	57.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	57.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	57.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	57.8	106-46-7	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S15459.13 (continued)

Sample Tag: SB-8 10.5-11.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 07/09/20 03:34, Analyst: JML (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dichlorobenzene	Not detected	100		ug/kg	57.8	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	57.8	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	57.8	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	57.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	57.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	57.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	57.8	87-61-6	
Naphthalene	Not detected	300		ug/kg	57.8	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	57.8	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID: S15459

Client: PME02 (PM Environmental, Inc. - Berkley)

Project: 01-12077-1-0003

Submitted: 07/07/2020 13:45 Login User: MMC

Attention: Jenna MacDonald

Address: PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: 248-206-1640

FAX:

Email: MacDonald@pmenv.com

Selection	Description	Note
Sample Receiving		
01. ☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C	Thermometer # IR 3.8
02. ☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun	
03. ☐ Yes ☒ No ☐ N/A	Samples shipped	
04. ☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box	
05. ☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. ☒ Yes ☐ No ☐ N/A	COC adequately filled out	
07. ☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab	
08. ☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC	
09. ☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontracted to:	
Preservation		
10. ☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation	
11. ☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12. ☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. ☒ Yes ☐ No ☐ N/A	All bottles intact	
14. ☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used	
15. ☒ Yes ☐ No ☐ N/A	Merit bottles used	
16. ☒ Yes ☐ No ☐ N/A	Sufficient sample volume received	
17. ☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration	
18. ☒ Yes ☐ No ☐ N/A	Samples submitted within holding time	
19. ☐ Yes ☐ No ☒ N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Jenna MacDonald				CONTACT NAME X SAME			
COMPANY PM Environmental				COMPANY			
ADDRESS 4080 W. 11 Mile Rd				ADDRESS			
CITY Berkley		STATE MI	ZIP CODE 48072	CITY		STATE	ZIP CODE
PHONE NO. 248-206-1640		FAX NO.	P.O. NO.	PHONE NO.		E MAIL ADDRESS	
E-MAIL ADDRESS macdonald@pmenv.com			QUOTE NO.	ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)			

PROJECT NO./NAME 01-12077-1-0003	SAMPLER(S) - PLEASE PRINT/SIGN NAME <i>[Signature]</i>	VAP Metals								Certifications
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____	☐ OHIO VAP ☐ Drinking Water									
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____	☐ DoD ☐ NPDES									

MATRIX CODE:	GW=GROUNDWATER SL=SLUDGE	WW=WASTEWATER DW=DRINKING WATER	S=SOIL O=OIL	L=LIQUID WP=WPIE	SD=SOLID A=AIR W=WASTE	# Containers & Preservatives	Project Locations ☐ Detroit ☐ New York

[illegible]

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME	RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5-18-12

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Jenna MacDonald		CONTACT NAME X SAME	
COMPANY Pm Environmental		COMPANY	
ADDRESS 4880 W. 11 Mile Rd		ADDRESS	
CITY Berkley	STATE MI	ZIP CODE 48072	CITY
PHONE NO. 248-206-1640	FAX NO.	P.O. NO.	STATE
E-MAIL ADDRESS macdonald@pmenv.com	QUOTE NO.	PHONE NO.	ZIP CODE
		E-MAIL ADDRESS	
ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)			

PROJECT NO./NAME 01-12077-1-0003	DATE PRINTED/SIGNATURE <i>[Signature]</i>	Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____		
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____		

MATRIX	GW=GROUNDWATER	WW=WASTEWATER	S=SOIL	L=LIQUID	SD=SOLID	# Containers & Preservatives	Project Locations ☐ Detroit ☐ New York
CODE:	SL=SLUDGE	DW=DRINKING WATER	O=OIL	WP=WIPE	A=AIR		

[illegible]

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	<i>X</i> Sampler	DATE 7-6-20	TIME 13:40	RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	old storage	DATE 7-6-20	TIME 13:40	RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	DATE 7-7-20	TIME 13:45
RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	Mo	DATE 7-7-20	TIME 13:45	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL 38
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	in photo	DATE 7-7-20	TIME 13:45	SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev 5 18 12



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ENVIRONMENTAL

Environmental
& Engineering
Services

Appendix D



108 ADAMS ST BAY CITY, MI 48708 (Property Address)

Parcel Number: 09-160-028-178-001-00

Property Owner: COUNTY OF BAY-MARKET PLACE**Summary Information**

> Commercial/Industrial Building Summary
 - Yr Built: N/A - # of Buildings: 1
 - Total Sq.Ft: 1,823

> Assessed Value: \$112,050 | Taxable Value: \$56,867

Error Loading Image

Item 1 of 2

1 Image / 1 Sketch

Owner and Taxpayer Information**Owner**

COUNTY OF BAY-MARKET
PLACE
108 ADAMS ST
BAY CITY, MI 48708-5842

Taxpayer

SEE OWNER INFORMATION

General Information for Tax Year 2018

Property Class	COMMERCIAL - IMPROVED 201	Unit	160 CITY OF BAY CITY
School District	BAY CITY PUBLIC	Assessed Value	\$112,050
MAP #		Taxable Value	\$56,867
CENSUS TRACT #	2802	State Equalized Value	\$112,050
UNITS	Not Available	Date of Last Name Change	07/02/2014
MBOR/MTT	Not Available	Notes	Not Available
Historical District	No	Census Block Group	No Data to Display
RENTAL STATUS	Not Available	Exemption	No Data to Display

Principal Residence Exemption Information

Homestead Date 06/22/1988

Principal Residence Exemption	June 1st	Final
2018	0.0000 %	-
2017	0.0000 %	0.0000 %

Previous Year Information

Year	MBOR Assessed	Final SEV	Final Taxable
2017	\$94,450	\$94,450	\$55,698
2016	\$57,700	\$57,700	\$22,397
2015	\$70,800	\$70,800	\$22,331

Land Information

Zoning Code	C-2A GENL BUS	Total Acres	1.574
Land Value	\$68,546	Land Improvements	\$11,206
Renaissance Zone	No	Renaissance Zone Expiration Date	No Data to Display
ECF Neighborhood	COMM 6 SOUTHEAST OF RIVER	Mortgage Code	No Data to Display
Lot Dimensions/Comments	No Data to Display	Neighborhood Enterprise Zone	No

Lot(s)	Frontage	Depth
No lots found.		
Total Frontage: 0.00 ft		Average Depth: 0.00 ft

Legal Description

LOTS 1 THRU 5 & 10 THRU 18 BLK 135 & VAC ALLEY ADJ TO LOTS 1 THRU 4 BLK 135 ADD TO LOWER SAGINAW EXCEPTING THAT PART OF LOTS 10 & 11 USED FOR ROAD ROW

Land Division Act Information

Date of Last Split/Combine	No Data to Display	Number of Splits Left	0
Date Form Filed	No Data to Display	Unallocated Div.s of Parent	0
Date Created	No Data to Display	Unallocated Div.s Transferred	0
Acreage of Parent	0.00	Rights Were Transferred	Not Available
Split Number	0	Courtesy Split	Not Available
Parent Parcel	No Data to Display		

Sale History

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms of Sale	Liber/Page	Comments
No sales history found.							

Building Information - 1823.00 sq ft Restaurants (Commercial)

Floor Area	1,823 sq ft	Estimated TCV	Not Available
Occupancy	Restaurants	Class	C
Stories Above Ground	1	Average Story Height	10 ft
Basement Wall Height	0 ft	Identical Units	Not Available
Year Built	Not Available	Year Remodeled	Not Available
Percent Complete	100%	Heat	Complete H.V.A.C.
Physical Percent Good	35%	Functional Percent Good	75%
Economic Percent Good	100%	Effective Age	39 yrs

Building Information - 35000 sq ft Farm Utility Buildings (Agricultural)

Type	Farm Utility Buildings	Class	S
Floor Area	35,000 sq ft	Estimated TCV	Not Available
Perimeter	900 ft	Height	16 ft
Year Built	Not Available	Quality	Average
Percent Complete	100%	Heat	No Heating/Cooling
Physical Percent Good	64%	Functional Percent Good	100%
Economic Percent Good	100%	Effective Age	18 yrs

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Appendix E



JENNA MACDONALD

STAFF SCIENTIST

1.800.313.2966 www.pmenv.com MacDonald@pmenv.com

Jenna MacDonald is a Staff Scientist for Site Investigation Services at PM Environmental, Inc. She specializes in Phase II Environmental Site Assessments (ESAs).

AREAS OF EXPERTISE

- Project management, data collection and evaluation, and report preparation of various environmental reports
- Preparation of Baseline Environmental Assessments (BEAs) in accordance with the Michigan Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994
- Preparation of Documentation of Due Care Compliance (DDCC) reports in accordance with Michigan NREPA Section 20107a (Part 201) and Part 213
- Preparation of Response Activity Plans (RAPs) in accordance with Michigan NREPA P.A. 451 of 1994 Section 20114b (Part 201)
- Conducted numerous subsurface investigations for various commercial clients
- Experience with soil vapor pin installation and sample collection for various commercial clients utilizing a helium leak detection kit
- Provided oversight and direction of multiple remedial excavations, UST removals and demolition projects for various commercial clients
- Preparation of construction/excavation summary reports and site assessment reports



EDUCATION

- Central Michigan University B.S. in Biology: Natural Resources and Environmental Science
- Florida Gulf Coast University M.S. in Environmental Science

CERTIFICATIONS

- OSHA 29 CFR 1910.120 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training

JENNIFER L. RITCHIE, C.P.G.

REGIONAL MANAGER—SITE INVESTIGATION SERVICES

1.800.313.2966

www.pmenv.com

ritchie@pmenv.com



Jennifer Ritchie is a Senior Project Geologist at PM Environmental, Inc. and has served clients in over thirty states and seven EPA Regions since 1998. She specializes in Phase II Environmental Site Assessments (ESAs), remediation and corrective action, and Leaking Underground Storage Tank (LUST) projects. Ritchie has managed thousands of Phase II ESAs and remediation projects including TSCA regulated sites. She has also received regulatory closure on multiple LUST sites. Her recent focus includes serving commercial and industrial clients, private equity, and banking/lending institutions.

AREAS OF EXPERTISE

- Project manager for Phase II and Phase III Environmental ESAs
- Project manager for Baseline Environmental Assessments (BEAs) and due care plan projects in accordance with the Natural Resource and Environmental Protection Act, P.A. 451 of 1994, Parts 201 and 213
- Project Manager for Leaking Underground Storage Tank (LUST) projects, including removal and in-place closures, contaminant delineation, and remediation using Risk-Based Corrective Action (RBCA) procedures, and reporting in accordance with the Natural Resources and Environmental Protection Act, P.A. 451 of 1994, Part 213
- Project manager for Underground Storage Tank (UST) system site assessment projects including removal and in-place closures and reporting in accordance with the Natural Resources and Environmental Protection Act, P.A. 451 of 1994, Part 211
- Project manager for Toxic Substance Control Act (TSCA) regulated projects, including contaminant delineation, remediation, and reporting in accordance with 40 CFR 761, subpart D
- Project manager for drilling of soil borings, installation of monitoring wells, collection of soil samples, development of monitoring wells, aquifer testing, installation of remediation systems, and operating and maintenance of remediation systems
- Provide peer technical oversight to staff members on due diligence projects and RBCA closures
- Experience with local, state, and federal regulatory acts
- Site-specific health and safety plan evaluation and development

EDUCATION

- University of Central Missouri
B.A. Geology

CERTIFICATIONS

- Certified Professional Geologist No. CPG-11223
- OSHA 29 CFR 1910.120 40-hour Safety Training
- OSHA 29 CFR 1910.120 8-hour Annual Refresher Safety Training
- MUST Safety Program Certification
- American Red Cross Standard First Aid and Adult CPR
- Meets the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312

ADVANCED TRAINING

- ASTM Risk-Based Corrective Action Applied at Petroleum Release Sites
- ITRC Vapor Intrusion Pathway: A Practical Guideline