APPENDIX J

LABORATORY ANALYTICAL REPORTS

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

16 June 2017

Work Order: 1705192

Price: $3,836.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
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MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/16/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SS03-0"-6"	1705192-01	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS02-0"-6"	1705192-02	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS01-0"-6"	1705192-03	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS05-0"-6"	1705192-04	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS07-0"-6"	1705192-05	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS09-0"-6"	1705192-06	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS06-0"-6"	1705192-07	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS04-0"-6"	1705192-08	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS08-0"-6"	1705192-09	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS10-0"-6"	1705192-10	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS10-0"-6"-DUP	1705192-11	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS11-0"-6"	1705192-12	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS12-0"-6"	1705192-13	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS14-0"-6"	1705192-14	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS13-0"-6"	1705192-15	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS48-0"-6"	1705192-16	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS48-0"-6"-DUP	1705192-17	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS47-0"-6"	1705192-18	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS17-0"-6"	1705192-19	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS15-0"-6"	1705192-20	Soil/Sediment	05/16/2017	05/19/2017	

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
N	Result is estimated due to Non-homogeneous sample.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

Lab Work Order # 1705192

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Client ID: QMCM-SS03-0"-6"

Lab ID: 1705192-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.5**	0.1	%	1	05/23/17	B7E2325	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.0**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.7**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**38**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**10000**	100	mg/kg dry	1000	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**450**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.4**	0.05	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**18**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**240**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	A03

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TEL: (517) 335-9800
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Client ID: QMCM-SS02-0"-6"

Lab ID: 1705192-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.7**	0.1	%	1	05/23/17	B7E2325	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.6**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**6.7**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**1800**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**53**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS01-0"-6"

Lab ID: 1705192-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**80.7**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.8**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**54**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**1100**	100	mg/kg dry	1000	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**110**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**8.3**	0.6	mg/kg dry	10	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**3.0**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**290**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS05-0"-6"

Lab ID: 1705192-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**69.5**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.9**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**62**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**1.1**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**36**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**160**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.3**	0.07	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**330**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS07-0"-6"

Lab ID: 1705192-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.9**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.1**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**100**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**1.2**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**38**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**1900**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**190**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**1.8**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**430**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS09-0"-6"

Lab ID: 1705192-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.1**	0.1	%	1	05/23/17	B7E2325	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.0**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**21**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**27**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**4.4**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS06-0"-6"

Lab ID: 1705192-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**72.7**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	0.5	mg/kg dry	10	06/08/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**22**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**7.5**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**43**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**14**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS04-0"-6"

Lab ID: 1705192-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.4**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.0**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**18**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**8.0**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**71**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**9.0**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**24**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS08-0"-6"

Lab ID: 1705192-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**80.7**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	Arsenic	ND	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**18**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**7.1**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**15**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**4.5**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**18**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS10-0"-6"

Lab ID: 1705192-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**54.1**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.2**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**120**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**280**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**920**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.09	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	**Selenium**	**0.8**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**61**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS10-0"-6"-DUP

Lab ID: 1705192-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**50.4**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.6**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**120**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**250**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**850**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.1	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	**Selenium**	**0.7**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**61**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS11-0"-6"

Lab ID: 1705192-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.5**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**13**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**6.7**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**53**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**4.2**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**16**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS12-0"-6"

Lab ID: 1705192-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**76.8**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.0**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**42**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**81**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**7.5**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**45**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS14-0"-6"

Lab ID: 1705192-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**97.8**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	0.5	mg/kg dry	10	06/08/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**6.8**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**25**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**2200**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**11**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.5**	0.05	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS13-0"-6"

Lab ID: 1705192-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**96.3**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	Arsenic	ND	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**8.0**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**28**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**670**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**8.3**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**1.1**	0.05	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**140**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS48-0"-6"

Lab ID: 1705192-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**570**	220	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**630**	440	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	**Benzo[b]fluoranthene**	**870**	440	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	**Chrysene**	**510**	220	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**1400**	220	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**870**	220	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**1000**	220	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*86.4 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*60.4 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*75.1 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*94.6 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*94.8 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SS48-0"-6"

Lab ID: 1705192-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.6**	0.1	%	1	05/23/17	B7E2325	2540 B	N
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.4**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**24**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.7**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**33**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**6100**	100	mg/kg dry	1000	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**140**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**2.1**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**200**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS48-0"-6"-DUP

Lab ID: 1705192-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.2**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.9**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**20**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**34**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**3300**	100	mg/kg dry	1000	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**2.6**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**180**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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Client ID: QMCM-SS47-0"-6"

Lab ID: 1705192-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**2100**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	**Acenaphthene**	**1900**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	**Acenaphthylene**	**470**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	**Anthracene**	**3900**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**5800**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**5700**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	**Benzo[b]fluoranthene**	**7400**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	**Benzo[g,h,i]perylene**	**2300**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	**Benzo[k]fluoranthene**	**3000**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	**Chrysene**	**7600**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	**Dibenz[a,h]anthracene**	**950**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**14000**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	**Fluorene**	**3300**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**2400**	500	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	**Naphthalene**	**6300**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**13000**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**12000**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*91.2 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*66.1 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*78.6 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	230	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	230	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*94.3 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.3 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS47-0"-6"

Lab ID: 1705192-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.7**	0.1	%	1	05/23/17	B7E2325	2540 B	N
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.6**	0.5	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-39-3	**Barium**	**22**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-92-1	**Lead**	**60**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	
7440-66-6	**Zinc**	**51**	1.0	mg/kg dry	10	06/07/17	B7E3006	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS17-0"-6"

Lab ID: 1705192-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.5**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.0**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**25**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**21**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**23000**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.8**	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**18**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS15-0"-6"

Lab ID: 1705192-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.9**	0.1	%	1	05/23/17	B7E2325	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**14**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**39**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**5.7**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**260**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**98**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/09/17	B7F0618	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**210**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705192	Abandoned Mining Wastes- QMCM Ops	surface SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: MP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SS03-0"-6"	5/10/17	0837	1	
2	02	QMCM-SS02-0"-6"		0843	1	
3	03	QMCM-SS01-0"-6"		0850	1	
4	04	QMCM-SS05-0"-6"		0955	1	
5	05	QMCM-SS07-0"-6"		1005	1	
6	06	QMCM-SS09-0"-6"		1013	1	
7	07	QMCM-SS06-0"-6"		1020	1	
8	08	QMCM-SS04-0"-6"		1029	1	
9	09	QMCM-SS08-0"-6"		1037	1	
10	10	QMCM-SS10-0"-6"		1045	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Mike Priebe /MDEQ	Melissa Smith LSC	5/10/17 1040
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705192	Abandoned Mining Wastes- QMCM Ops	surface SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		MP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457	Test America- asbestos	N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SS10-0"-6"-DUP	05/16/17	1045	1	
2	12	QMCM-SS11-0"-6"		1114	1	
3	13	QMCM-SS12-0"-6"		1119	1	
4	14	QMCM-SS14-0"-6"		1132	1	
5	15	QMCM-SS 13-0"-6"		1141	1	
6	16	QMCM-SS 48-0"-6"		1149	1	
7	17	QMCM-SS 48-0"-6"-DUP		1149	1	
8	18	QMCM-SS 47-0"-6"		1155	1	
9	19	QMCM-SS 17-0"-6"		1330	1	
10	20	QMCM-SS 15-0"-6"		1340	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

METALS CHEMISTRY PACKAGES

- 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,Tl,V,Zn)
- Michigan10 - Total 1 2 3 4 5 6 7 8 9 10
  (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

- 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

GENERAL CHEMISTRY

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
- Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10
- Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org.: Mike Priebe / MDEQ	Melissa Smith	
Signature:	COSC	5/19/17 1040
Print Name & Org.:		
Signature:		
Print Name & Org.:		
Signature:		

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

16 June 2017

Work Order: 1705193

Price: $3,811.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/16/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SS20-0"-6"	1705193-01	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS20-0"-6"-DUP	1705193-02	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS19-0"-6"	1705193-03	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS18-0"-6"	1705193-04	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS16-0"-6"	1705193-05	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS21-0"-6"	1705193-06	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS24-0"-6"	1705193-07	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS22-0"-6"	1705193-08	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS23-0"-6"	1705193-09	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS49-0"-6"	1705193-10	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SS37-0"-6"	1705193-11	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS38-0"-6"	1705193-12	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS39-0"-6"	1705193-13	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS40-0"-6"	1705193-14	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS40-0"-6"-DUP	1705193-15	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS45-0"-6"	1705193-16	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS46-0"-6"	1705193-17	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS41-0"-6"	1705193-18	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS42-0"-6"	1705193-19	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS43-0"-6"	1705193-20	Soil/Sediment	05/17/2017	05/19/2017	

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FAX: (517) 335-9600

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A11	Result is estimated due to high initial verification standard criteria failure.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A05	Result and reporting limit 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 compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS20-0"-6"

Lab ID: 1705193-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.3**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.3**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**97**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**31**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**59000**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**280**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.5**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**4.9**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**36**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**460**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS20-0"-6"-DUP

Lab ID: 1705193-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.4**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.5**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**40**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**28**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**21000**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**220**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.3**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**30**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**290**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS19-0"-6"

Lab ID: 1705193-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.9**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.2**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**13**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**34**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**45000**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.6**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**28**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**170**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS18-0"-6"

Lab ID: 1705193-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**80.5**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.5**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**20**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**9.8**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**160**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**16**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS16-0"-6"

Lab ID: 1705193-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.5**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.7**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**23**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**7.9**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**160**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**18**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.09**	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS21-0"-6"

Lab ID: 1705193-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.8**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.7**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**22**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**970**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**21**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.07**	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**41**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS24-0"-6"

Lab ID: 1705193-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.8**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.3**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**990**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**10**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**20**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS22-0"-6"

Lab ID: 1705193-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.7**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.1**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**9200**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**76**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**3.9**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**150**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS23-0"-6"

Lab ID: 1705193-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.7**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.4**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**900**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**25**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.05**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**39**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS49-0"-6"

Lab ID: 1705193-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	2300	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	470	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SS49-0"-6"

Lab ID: 1705193-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	470	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	230	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	230	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	5900	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	590	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*109 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*121 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*114 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SS49-0"-6"

Lab ID: 1705193-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	860	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	Chrysene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	680	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	Phenanthrene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	Pyrene	ND	340	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*90.4 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*65.3 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*81.9 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									**See note Y20**
12674-11-2	Aroclor 1016	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	340	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*106 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*103 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SS49-0"-6"

Lab ID: 1705193-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**58.4**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.9**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**100**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**7.5**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**240**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**39**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.09	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**0.2**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**46**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS37-0"-6"

Lab ID: 1705193-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.8**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.6**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**15**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**170**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**6.0**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.07**	0.05	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS38-0"-6"

Lab ID: 1705193-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.2**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**55**	5.0	mg/kg dry	100	06/08/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**31**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**330**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**130**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.6**	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**2.6**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**36**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS39-0"-6"

Lab ID: 1705193-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.2**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**75**	5.0	mg/kg dry	100	06/08/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**56**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**22**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**640**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**27**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**3.4**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**45**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS40-0"-6"

Lab ID: 1705193-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.2**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**63**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**47**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**530**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**31**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**0.5**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**52**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS40-0"-6"-DUP

Lab ID: 1705193-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.2**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**95**	5.0	mg/kg dry	100	06/08/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**41**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**29**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**730**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**23**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**0.7**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**77**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Client ID: QMCM-SS45-0"-6"

Lab ID: 1705193-16

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	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	170	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	170	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.8 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.9**	0.1	%	1	05/23/17	B7E2326	2540 B	

Lab Work Order # 1705193

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Client ID: QMCM-SS46-0"-6"

Lab ID: 1705193-17

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	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*92.9 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*98.2 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.6**	0.1	%	1	05/23/17	B7E2326	2540 B	

Lab Work Order # 1705193

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS41-0"-6"

Lab ID: 1705193-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*97.3 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.9 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**74.8**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.4**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**150**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**25**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**3900**	100	mg/kg dry	1000	06/08/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**230**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-97-6	**Mercury**	**0.3**	0.07	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	**Selenium**	**0.4**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**2.5**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**360**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

STATE OF MICHIGAN
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SS42-0"-6"

Lab ID: 1705193-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*147 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*128 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**71.9**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.5**	0.5	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-39-3	**Barium**	**54**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-50-8	**Copper**	**1000**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7439-92-1	**Lead**	**160**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	A03
7439-97-6	**Mercury**	**0.1**	0.07	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-22-4	**Silver**	**2.4**	0.1	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	
7440-66-6	**Zinc**	**120**	1.0	mg/kg dry	10	06/07/17	B7E3007	6020/200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SS43-0"-6"

Lab ID: 1705193-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*105 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.1 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**78.5**	0.1	%	1	05/23/17	B7E2326	2540 B	
Inorganics-Metals									
7440-38-2	Arsenic	ND	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**27**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**33**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**2100**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**9.0**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0619	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.3**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**350**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
17 05193	Abandoned Mining Wastes- QMCM Ops	surface SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: MP
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SS 20 - 0"-6"	05/16/17	1348	1	
2	02	QMCM-SS 20 - 0"-6" - DUP		1348	1	
3	03	QMCM-SS 19 - 0"-6"		1356	1	
4	04	QMCM-SS 18 - 0"-6"		1402	1	
5	05	QMCM-SS 16 - 0"-6"		1414	1	
6	06	QMCM-SS 21 - 0"-6"		1421	1	
7	07	QMCM-SS 24 - 0"-6"		1430	1	
8	08	QMCM-SS 22 - 0"-6"		1435	1	
9	09	QMCM-SS 23 - 0"-6"		1442	1	
10	10	QMCM-SS 49 - 0"-6"		1500	2	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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)
ONs 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

METALS CHEMISTRY PACKAGES

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,Tl,V,Zn)		
Michigan10 - Total	1 2 3 4 5 6 7 8 9	10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)		

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org. Mike Priebe /MDEQ	Melissa Smith	
Signature:	USC	5/19/17 1041
Print Name & Org.		
Signature:		
Print Name & Org.		
Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705193	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: MP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906 337 0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SS 37 - 0"-6"	5/17/17	0832	1	
2	12	QMCM-SS 38 - 0"-6"		0837	1	
3	13	QMCM-SS 39 - 0"-6"		0842	1	
4	14	QMCM-SS 40 - 0"-6"		0847	1	
5	15	QMCM-SS 40 - 0"-6" -DUP		0847	1	
6	16	QMCM-SS 45 - 0"-6"		1110	1	
7	17	QMCM-SS 46 - 0"-6"		1115	1	
8	18	QMCM-SS 41 - 0"-6"		1310	1	
9	19	QMCM-SS 42 - 0"-6"		1315	1	
10	20	QMCM-SS 43 - 0"-6"		1320	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Mike Priebe / MDEQ	Melissa Smith	
Signature:			5/19/17 1041
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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16 June 2017

Work Order: 1705194

Price: $2,405.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/16/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SS44-0"-6"	1705194-01	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS44-0"-6"-DUP	1705194-02	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS29-0"-6"	1705194-03	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS30-0"-6"	1705194-04	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS31-0"-6"	1705194-05	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS32-0"-6"	1705194-06	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS33-0"-6"	1705194-07	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS34-0"-6"	1705194-08	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS35-0"-6"	1705194-09	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS36-0"-6"	1705194-10	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS36-0"-6"-DUP	1705194-11	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS25-0"-6"	1705194-12	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS26-0"-6"	1705194-13	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS27-0"-6"	1705194-14	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SS28-0"-6"	1705194-15	Soil/Sediment	05/17/2017	05/19/2017	

Notes and Definitions

Y20	Reporting Limits (RL) raised due to matrix.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
A04	Result is estimated due to high matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SS44-0"-6"

Lab ID: 1705194-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*90.7 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*95.4 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.6**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.1**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**100**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**36**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**3300**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**150**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.9**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.5**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**180**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SS44-0"-6"-DUP

Lab ID: 1705194-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.0**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.9**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**58**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**32**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**3000**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**57**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.9**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.4**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**120**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SS29-0"-6"

Lab ID: 1705194-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.1**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.2**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**11**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**580**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.09**	0.05	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**42**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS30-0"-6"

Lab ID: 1705194-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.0**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.4**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**21**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.8**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**60**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SS31-0"-6"

Lab ID: 1705194-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.4**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.0**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**33**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1900**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**7.1**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**15**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**100**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS32-0"-6"

Lab ID: 1705194-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**73.8**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.4**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**58**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**220**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**18**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	**Selenium**	**0.5**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**54**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS33-0"-6"

Lab ID: 1705194-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**74.3**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**16**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**160**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**4.8**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.07	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**34**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS34-0"-6"

Lab ID: 1705194-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**77.3**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.0**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**61**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**230**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.8**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**1.5**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**150**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS35-0"-6"

Lab ID: 1705194-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.7**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	Arsenic	ND	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**7.8**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**980**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**9.8**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.5**	0.05	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**35**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SS36-0"-6"

Lab ID: 1705194-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.0**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.8**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**6.1**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**7.0**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1000**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**13**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SS36-0"-6"-DUP

Lab ID: 1705194-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.5**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.8**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**16**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1200**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**19**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**52**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SS25-0"-6"

Lab ID: 1705194-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.1**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**29**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**44**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**560**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	**Selenium**	**2.8**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**1.8**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**39**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SS26-0"-6"

Lab ID: 1705194-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.7**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**13**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**31**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**1700**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**51**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**72**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SS27-0"-6"

Lab ID: 1705194-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.3**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**32**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**57**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**10**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**310**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**48**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	**Selenium**	**1.7**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**35**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SS28-0"-6"

Lab ID: 1705194-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.1**	0.1	%	1	05/24/17	B7E2412	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**19**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**43**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**7.7**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**67**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**7.9**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	**Selenium**	**1.4**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**15**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
05194	Abandoned Mining Wastes- QMCM Ops	surface SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		MP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457	Test America- asbestos	N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SS 44-0"-6"	05/17/17	1325	1	
2	02	QMCM-SS 44-6"-6"-DUP	05/17/17	1325	1	
3	03	QMCM-SS 29-0"-6"		1400	1	
4	04	QMCM-SS 30-0"-6"		1405	1	
5	05	QMCM-SS 31-0"-6"		1410	1	
6	06	QMCM-SS 32-0"-6"		1415	1	
7	07	QMCM-SS 33-0"-6"		1420	1	
8	08	QMCM-SS 34-0"-6"		1425	1	
9	09	QMCM-SS 35-0"-6"		1430	1	
10	10	QMCM-SS 36-0"-6"		1435	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

METALS CHEMISTRY PACKAGES

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,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Mike Priebe / MDEQ	Melissa Smith LSSC	5/19/17 1642
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705196	Abandoned Mining Wastes- QMCM Ops	surface SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: MP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SS 30 - 0"-6" - DUP	5/17/16	1405	1	
2	12	QMCM-SS 25 - 0"-6"		1520	1	
3	13	QMCM-SS 26 - 0"-6"		1525	1	
4	14	QMCM-SS 27 - 0"-6"		1530	1	
5	15	QMCM-SS 28 - 0"-6"		1535	1	
6		QMCM-SS				
7		QMCM-SS				
8		QMCM-SS				
9		QMCM-SS				
10		QMCM-SS				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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
ORO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Mike Priebe / MDEQ	Melissa Smith CESC	5/19/17 1042
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

21 June 2017

Work Order: 1705195

Price: $12,160.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/21/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SB01 0-6"	1705195-01	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB01 6"-8'	1705195-02	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB01 0-6" DUP	1705195-03	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB01 6"-8" DUP	1705195-04	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB02 4"-10"	1705195-05	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB02 10"-4'	1705195-06	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB03 0-6"	1705195-07	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB03 6"-5'	1705195-08	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB04 6"-12"	1705195-09	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB04 12"-24"	1705195-10	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB19-0-6"	1705195-11	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB19-6"-7'	1705195-12	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB19-6"-7' dup	1705195-13	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB18 0-6"	1705195-14	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB18 6"-8'	1705195-15	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB17 0-6"	1705195-16	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB17 6"-6'	1705195-17	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB20-0"-6"	1705195-18	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB20-6"-4'	1705195-19	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB22-12"-18"	1705195-20	Soil/Sediment	05/18/2017	05/19/2017	

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Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A11	Result is estimated due to high initial verification standard criteria failure.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
T	Reported value is less than the reporting limit (RL). Result is estimated.
Y26	Sample was not covered with methanol. Results are estimated.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
Y11	Unidentified peaks present in sample.
Y15	Methanol leaked out of the vial in transit to the lab. Results and reporting limits are estimated.
Y17	Probable petroleum product(s) present.
Y20	Reporting Limits (RL) raised due to matrix.
Y21	Reporting Limits (RL) raised due to matrix interference.
N	Result is estimated due to Non-homogeneous sample.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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Client ID: QMCM-SB01 0-6"

Lab ID: 1705195-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB01 0-6"

Lab ID: 1705195-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3900	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	79	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*108 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*111 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*110 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Lab ID: 1705195-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	1600	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**630**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	Chrysene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**1400**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1300	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	630	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**700**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**1200**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*94.6 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*69.2 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*80.3 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*117 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*94.4 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.2**	0.1	%	1	05/24/17	B7E2412	2540 B	
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.3**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**160**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**2.4**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**93**	20	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**3200**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**520**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.4**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.0**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**1200**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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Lab ID: 1705195-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	300	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	

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Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	300	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	150	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3800	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	75	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*84.6 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*87.8 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*85.6 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB01 6''-8'

Lab ID: 1705195-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**290**	240	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*84.8 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*61.9 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*82.8 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*97.9 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*93.8 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB01 6''-8'

Lab ID: 1705195-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.3**	0.1	%	1	05/24/17	B7E2412	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.5**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**50**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**25**	2.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**310**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**110**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.5**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**180**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	

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Client ID: QMCM-SB01 0-6" DUP

Lab ID: 1705195-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1500	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	300	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB01 0-6" DUP

Lab ID: 1705195-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	300	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	150	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	150	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3800	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	380	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	76	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*91.7 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*95.6 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*91.5 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Lab ID: 1705195-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	620	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**590**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**700**	490	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	**Benzo[b]fluoranthene**	**970**	490	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	**Benzo[g,h,i]perylene**	**500**	490	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	490	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	**Chrysene**	**580**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	490	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**1400**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	490	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**900**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**1100**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*90.5 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*65.6 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*77.7 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	160	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	160	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*130 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*112 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**81.2**	0.1	%	1	05/24/17	B7E2412	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.7**	0.5	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-39-3	**Barium**	**110**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-43-9	**Cadmium**	**1.5**	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-47-3	**Chromium**	**90**	20	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7440-50-8	**Copper**	**2600**	10	mg/kg dry	100	06/08/17	B7E3014	6020/200.8	
7439-92-1	**Lead**	**450**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7439-97-6	**Mercury**	**0.3**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-22-4	**Silver**	**3.0**	0.1	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	
7440-66-6	**Zinc**	**740**	1.0	mg/kg dry	10	06/08/17	B7E3014	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB01 6"-8" DUP

Lab ID: 1705195-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB01 6"-8" DUP

Lab ID: 1705195-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*103 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB01 6"-8" DUP

Lab ID: 1705195-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*91.4 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*68.0 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*87.4 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	190	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	190	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*100 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*93.6 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB01 6"-8" DUP

Lab ID: 1705195-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.2**	0.1	%	1	05/24/17	B7E2412	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.1**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**72**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.6**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**300**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**220**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**3.2**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**180**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB02 4"-10"

Lab ID: 1705195-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	**1,2,3-Trimethylbenzene**	**110**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**270**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**720**	330	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	**Benzene**	**130**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB02 4"-10"

Lab ID: 1705195-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	**Ethylbenzene**	**280**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	**Hexane**	**100**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	**Isopropylbenzene**	**150**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**700**	130	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	**Naphthalene**	**650**	330	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	**n-Propylbenzene**	**210**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**610**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**1200**	66	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*95.0 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*97.1 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*94.3 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB02 4"-10"

Lab ID: 1705195-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**410**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**450**	460	ug/kg dry	1	05/30/17	B7E2002	8270	T
205-99-2	**Benzo[b]fluoranthene**	**650**	460	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	**Chrysene**	**320**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**1000**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	**Naphthalene**	**280**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**710**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**790**	230	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*84.2 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*55.2 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*80.9 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*89.0 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.5 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB02 4"-10"

Lab ID: 1705195-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.5**	0.1	%	1	05/24/17	B7E2412	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.6**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**31**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**23**	20	mg/kg dry	100	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**3000**	10	mg/kg dry	100	06/09/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**99**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/09/17	B7F0620	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**2.4**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**130**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB02 10''-4'

Lab ID: 1705195-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	

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Lab ID: 1705195-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	4100	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	Toluene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	81	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*95.4 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*94.4 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*93.6 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Lab ID: 1705195-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1000**	630	ug/kg dry	1	05/30/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
218-01-9	Chrysene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**340**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	05/30/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	500	ug/kg dry	1	05/30/17	B7E2002	8270	
91-20-3	**Naphthalene**	**880**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**550**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
129-00-0	**Pyrene**	**280**	250	ug/kg dry	1	05/30/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*83.9 %*	*32.9-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*60.1 %*	*31.8-115*		*05/30/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*78.9 %*	*38.5-115*		*05/30/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*95.3 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*87.5 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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Client ID: QMCM-SB02 10''-4'

Lab ID: 1705195-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.5**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.3**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**46**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**2000**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**39**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**68**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SB03 0-6"

Lab ID: 1705195-07

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	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**110**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**370**	320	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB03 0-6"

Lab ID: 1705195-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**220**	130	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**160**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**190**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*112 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*113 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*111 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB03 0-6"

Lab ID: 1705195-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**630**	560	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**490**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**380**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*94.3 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*67.3 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*86.5 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*88.6 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*80.4 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB03 0-6"

Lab ID: 1705195-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.5**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.2**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**48**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**790**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.5**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**2.9**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**100**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB03 6''-5'

Lab ID: 1705195-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**230**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**600**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**110**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
540-84-1	2,2,4-Trimethylpentane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
91-57-6	**2-Methylnaphthalene**	**1000**	300	ug/kg dry	50	05/23/17	B7E2328	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2328	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
71-43-2	**Benzene**	**150**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/23/17	B7E2328	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
110-82-7	**Cyclohexane**	**840**	300	ug/kg dry	50	05/23/17	B7E2328	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB03 6''-5'

Lab ID: 1705195-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/23/17	B7E2328	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
100-41-4	**Ethylbenzene**	**210**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
110-54-3	**Hexane**	**260**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
98-82-8	**Isopropylbenzene**	**140**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
1330-20-7	**m & p - Xylene**	**1100**	120	ug/kg dry	50	05/23/17	B7E2328	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2328	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
91-20-3	**Naphthalene**	**1100**	300	ug/kg dry	50	05/23/17	B7E2328	8260	X
104-51-8	**n-Butylbenzene**	**70**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
103-65-1	**n-Propylbenzene**	**140**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
95-47-6	**o-Xylene**	**880**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/23/17	B7E2328	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/23/17	B7E2328	8260	
108-88-3	**Toluene**	**1000**	60	ug/kg dry	50	05/23/17	B7E2328	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	05/23/17	B7E2328	8260	
Surrogate: Bromofluorobenzene			*106 %*	*40.3-194*		*05/23/17*	B7E2328	*8260*	
Surrogate: Dibromofluoromethane			*100 %*	*52.1-217*		*05/23/17*	B7E2328	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*05/23/17*	B7E2328	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB03 6''-5'

Lab ID: 1705195-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1500**	560	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**1200**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**640**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*76.6 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*52.5 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*76.9 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	160	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	160	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*76.2 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*73.9 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB03 6''-5'

Lab ID: 1705195-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.3**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	**Available Cyanide**	**0.11**	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.7**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**19**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**7.2**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**18**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**1.6**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SB04 6''-12''

Lab ID: 1705195-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y26**
630-20-6	1,1,1,2-Tetrachloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	**1,2,3-Trimethylbenzene**	**130**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**360**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**770**	390	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	**Cyclohexane**	**490**	390	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB04 6''-12''

Lab ID: 1705195-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y26**
75-71-8	Dichlorodifluoromethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	**Ethylbenzene**	**110**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	**Hexane**	**110**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	**Isopropylbenzene**	**87**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**690**	160	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	**Naphthalene**	**710**	390	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	**n-Propylbenzene**	**91**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**580**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3900	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	390	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**420**	78	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	78	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*99.7 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*100 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB04 6''-12''

Lab ID: 1705195-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1900**	610	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**230**	250	ug/kg dry	1	05/31/17	B7E2002	8270	T
50-32-8	Benzo[a]pyrene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	250	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**380**	250	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	490	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**1400**	250	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**1100**	250	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	**Pyrene**	**350**	250	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*80.3 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*56.1 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*72.6 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*73.9 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*71.3 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB04 6"-12"

Lab ID: 1705195-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**81.5**	0.1	%	1	05/24/17	B7E2413	2540 B	N
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.0**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**53**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**370**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**54**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.7**	0.2	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**41**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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

Client ID: QMCM-SB04 12"-24"

Lab ID: 1705195-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	2100	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	430	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB04 12"-24"

Lab ID: 1705195-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	430	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	m & p - Xylene	ND	210	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	210	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	o-Xylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	5300	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	530	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**180**	110	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*94.4 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethone			*101 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*99.0 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB04 12"-24"

Lab ID: 1705195-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**3900**	1900	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1500	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**3500**	770	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**1900**	770	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	Pyrene	ND	770	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*73.3 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*47.5 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*69.8 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11104-28-2	Aroclor 1221	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11141-16-5	Aroclor 1232	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
53469-21-9	Aroclor 1242	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
12672-29-6	Aroclor 1248	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11097-69-1	Aroclor 1254	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
11096-82-5	Aroclor 1260	ND	230	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	230	ug/kg dry	1	05/24/17	B7E2001	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	150	ug/kg dry	1	05/24/17	B7E2001	8081/8082	
Surrogate: Decachlorobiphenyl			*61.0 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*61.0 %*	*30-150*		*05/24/17*	B7E2001	*8081/8082*	

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Client ID: QMCM-SB04 12"-24"

Lab ID: 1705195-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**64.9**	0.1	%	1	05/24/17	B7E2413	2540 B	N
57-12-5	Available Cyanide	ND	0.15	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.7**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**49**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**6.7**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**110**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**6.7**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.08	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.8**	0.2	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**15**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB19-0-6"

Lab ID: 1705195-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	**1,2,3-Trimethylbenzene**	**270**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**600**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**140**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**1600**	270	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	**Benzene**	**120**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	**Cyclohexane**	**680**	270	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB19-0-6"

Lab ID: 1705195-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	**Ethylbenzene**	**180**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	**Hexane**	**210**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	**Isopropylbenzene**	**130**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**1100**	110	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	**Naphthalene**	**1300**	270	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	**n-Butylbenzene**	**73**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	**n-Propylbenzene**	**130**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**800**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	2700	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	270	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**830**	55	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*91.9 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*93.8 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*95.8 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB19-0-6"

Lab ID: 1705195-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**3500**	530	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**340**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	**Chrysene**	**340**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**540**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**2200**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**2400**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	**Pyrene**	**600**	210	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*85.4 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*65.2 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*76.1 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.3**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.3**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**22**	20	mg/kg dry	100	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**3200**	10	mg/kg dry	100	06/09/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**5.7**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.0**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**64**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB19-6''-7'

Lab ID: 1705195-12

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	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	**1,2,3-Trimethylbenzene**	**110**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**300**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**63**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**740**	310	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	**Benzene**	**70**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	**Cyclohexane**	**350**	310	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB19-6''-7'

Lab ID: 1705195-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	**Ethylbenzene**	**88**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	**Hexane**	**120**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**570**	130	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	**Naphthalene**	**560**	310	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**350**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**450**	63	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*100 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Client ID: QMCM-SB19-6''-7'

Lab ID: 1705195-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**2600**	560	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**1600**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**1400**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*89.3 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*65.0 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*77.9 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.0**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB19-6''-7'

Lab ID: 1705195-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.4**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**13**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**6.7**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**240**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**4.2**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**11**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB19-6''-7' dup

Lab ID: 1705195-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**160**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**470**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**88**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
91-57-6	**2-Methylnaphthalene**	**960**	320	ug/kg dry	50	05/23/17	B7E2328	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2328	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
71-43-2	**Benzene**	**67**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/23/17	B7E2328	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
110-82-7	**Cyclohexane**	**510**	320	ug/kg dry	50	05/23/17	B7E2328	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	

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Client ID: QMCM-SB19-6''-7' dup

Lab ID: 1705195-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/23/17	B7E2328	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
100-41-4	**Ethylbenzene**	**120**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
110-54-3	**Hexane**	**130**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
98-82-8	**Isopropylbenzene**	**100**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
1330-20-7	**m & p - Xylene**	**740**	130	ug/kg dry	50	05/23/17	B7E2328	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2328	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
91-20-3	**Naphthalene**	**780**	320	ug/kg dry	50	05/23/17	B7E2328	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
103-65-1	**n-Propylbenzene**	**88**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
95-47-6	**o-Xylene**	**610**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2328	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2328	8260	
108-88-3	**Toluene**	**410**	63	ug/kg dry	50	05/23/17	B7E2328	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/23/17	B7E2328	8260	
Surrogate: Bromofluorobenzene			*109 %*	*40.3-194*		*05/23/17*	B7E2328	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*05/23/17*	B7E2328	*8260*	
Surrogate: Toluene-d8			*109 %*	*55.4-196*		*05/23/17*	B7E2328	*8260*	

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Client ID: QMCM-SB19-6''-7' dup

Lab ID: 1705195-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**3100**	560	ug/kg dry	1	05/31/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2002	8270	
91-20-3	**Naphthalene**	**2000**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**1500**	220	ug/kg dry	1	05/31/17	B7E2002	8270	
129-00-0	**Pyrene**	**210**	220	ug/kg dry	1	05/31/17	B7E2002	8270	T
Surrogate: 2-Fluorobiphenyl			*93.2 %*	*32.9-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*70.4 %*	*31.8-115*		*05/31/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*76.4 %*	*38.5-115*		*05/31/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.4**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB19-6''-7' dup

Lab ID: 1705195-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.4**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**7.8**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**180**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**3.9**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB18 0-6"

Lab ID: 1705195-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**130**	82	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**470**	410	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	Benzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	

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Client ID: QMCM-SB18 0-6"

Lab ID: 1705195-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	330	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**250**	160	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	160	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**200**	82	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	4100	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	410	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**210**	82	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	82	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*89.5 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*98.0 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*93.8 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20, Y21**
91-57-6	**2-Methylnaphthalene**	**3800**	3100	ug/kg dry	1	05/26/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
120-12-7	**Anthracene**	**2300**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**7200**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**5700**	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
205-99-2	**Benzo[b]fluoranthene**	**6600**	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
191-24-2	**Benzo[g,h,i]perylene**	**3000**	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
218-01-9	**Chrysene**	**9500**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**14000**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
86-73-7	Fluorene	ND	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2500	ug/kg dry	1	05/26/17	B7E2002	8270	
91-20-3	**Naphthalene**	**2900**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**18000**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
129-00-0	**Pyrene**	**22000**	1200	ug/kg dry	1	05/26/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*82.1 %*	*32.9-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*48.6 %*	*31.8-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*84.1 %*	*38.5-115*		*05/26/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**80.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Inorganics-Metals									
7440-38-2	**Arsenic**	**11**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**170**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**1700**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**720**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**510**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Lab ID: 1705195-15

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	05/22/17	B7E2209	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**110**	62	ug/kg dry	50	05/22/17	B7E2209	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
540-84-1	2,2,4-Trimethylpentane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	A05
91-57-6	**2-Methylnaphthalene**	**360**	310	ug/kg dry	50	05/22/17	B7E2209	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
71-43-2	**Benzene**	**76**	62	ug/kg dry	50	05/22/17	B7E2209	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/22/17	B7E2209	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
1330-20-7	**m & p - Xylene**	**190**	120	ug/kg dry	50	05/22/17	B7E2209	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/22/17	B7E2209	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
95-47-6	**o-Xylene**	**140**	62	ug/kg dry	50	05/22/17	B7E2209	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/22/17	B7E2209	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/22/17	B7E2209	8260	A05
108-88-3	**Toluene**	**260**	62	ug/kg dry	50	05/22/17	B7E2209	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	05/22/17	B7E2209	8260	
Surrogate: Bromofluorobenzene			*102 %*	*40.3-194*		*05/22/17*	B7E2209	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*05/22/17*	B7E2209	*8260*	
Surrogate: Toluene-d8			*99.6 %*	*55.4-196*		*05/22/17*	B7E2209	*8260*	

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Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**710**	570	ug/kg dry	1	05/26/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**250**	230	ug/kg dry	1	05/26/17	B7E2002	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	05/26/17	B7E2002	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/26/17	B7E2002	8270	
91-20-3	**Naphthalene**	**520**	230	ug/kg dry	1	05/26/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**520**	230	ug/kg dry	1	05/26/17	B7E2002	8270	
129-00-0	**Pyrene**	**410**	230	ug/kg dry	1	05/26/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*89.2 %*	*32.9-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*67.9 %*	*31.8-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*83.7 %*	*38.5-115*		*05/26/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.2**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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TEL: (517) 335-9800
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Client ID: QMCM-SB18 6''-8'

Lab ID: 1705195-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.9**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**26**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**1200**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**1800**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**33**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB17 0-6"

Lab ID: 1705195-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**100**	100	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	2000	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	400	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB17 0-6"

Lab ID: 1705195-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	400	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	**m & p - Xylene**	**190**	200	ug/kg dry	50	05/23/17	B7E2308	8260	T
75-09-2	Methylene chloride	ND	200	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	**o-Xylene**	**140**	100	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	5100	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	510	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**140**	100	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	100	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*130 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*140 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*139 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Client ID: QMCM-SB17 0-6"

Lab ID: 1705195-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**2600**	750	ug/kg dry	1	05/26/17	B7E2002	8270	
83-32-9	Acenaphthene	ND	300	ug/kg dry	1	05/26/17	B7E2002	8270	
208-96-8	Acenaphthylene	ND	300	ug/kg dry	1	05/26/17	B7E2002	8270	
120-12-7	**Anthracene**	**720**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
56-55-3	**Benz[a]anthracene**	**2700**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
50-32-8	**Benzo[a]pyrene**	**2400**	600	ug/kg dry	1	05/26/17	B7E2002	8270	
205-99-2	**Benzo[b]fluoranthene**	**2800**	600	ug/kg dry	1	05/26/17	B7E2002	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1100**	600	ug/kg dry	1	05/26/17	B7E2002	8270	
207-08-9	**Benzo[k]fluoranthene**	**1000**	600	ug/kg dry	1	05/26/17	B7E2002	8270	
218-01-9	**Chrysene**	**3900**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
53-70-3	Dibenz[a,h]anthracene	ND	600	ug/kg dry	1	05/26/17	B7E2002	8270	
206-44-0	**Fluoranthene**	**5700**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
86-73-7	Fluorene	ND	300	ug/kg dry	1	05/26/17	B7E2002	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**930**	600	ug/kg dry	1	05/26/17	B7E2002	8270	
91-20-3	**Naphthalene**	**1900**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
85-01-8	**Phenanthrene**	**6100**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
129-00-0	**Pyrene**	**7400**	300	ug/kg dry	1	05/26/17	B7E2002	8270	
Surrogate: 2-Fluorobiphenyl			*95.5 %*	*32.9-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: Nitrobenzene-d5			*76.3 %*	*31.8-115*		*05/26/17*	B7E2002	*8270*	
Surrogate: p-Terphenyl-d14			*80.8 %*	*38.5-115*		*05/26/17*	B7E2002	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**66.6**	0.1	%	1	05/24/17	B7E2413	2540 B	N
57-12-5	Available Cyanide	ND	0.15	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Lab ID: 1705195-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**28**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**45**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**530**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**63**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.08	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**1.0**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.7**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**50**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB17 6''-6'

Lab ID: 1705195-17

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	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	

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Client ID: QMCM-SB17 6''-6'

Lab ID: 1705195-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*120 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*128 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*129 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB17 6''-6'

Lab ID: 1705195-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	05/31/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**230**	220	ug/kg dry	1	05/31/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**420**	220	ug/kg dry	1	05/31/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**660**	220	ug/kg dry	1	05/31/17	B7E2302	8270	
129-00-0	**Pyrene**	**660**	220	ug/kg dry	1	05/31/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*85.2 %*	*32.9-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*60.5 %*	*31.8-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*93.9 %*	*38.5-115*		*05/31/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB17 6''-6'

Lab ID: 1705195-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.1**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**20**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**8.1**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**210**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**32**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**61**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB20-0"-6"

Lab ID: 1705195-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**250**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**640**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**150**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	**2-Methylnaphthalene**	**1400**	330	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	**Benzene**	**120**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	**Cyclohexane**	**950**	330	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	

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Client ID: QMCM-SB20-0''-6''

Lab ID: 1705195-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	**Ethylbenzene**	**200**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	**Hexane**	**260**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	**Isopropylbenzene**	**100**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	**m & p - Xylene**	**1300**	130	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	**Naphthalene**	**1300**	330	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	**n-Butylbenzene**	**70**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	**n-Propylbenzene**	**150**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	**o-Xylene**	**1000**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	**Toluene**	**960**	66	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*97.2 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*105 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

Lab Work Order # 1705195

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Client ID: QMCM-SB20-0"-6"

Lab ID: 1705195-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20, Y21**
91-57-6	**2-Methylnaphthalene**	**6400**	2900	ug/kg dry	1	05/31/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
120-12-7	Anthracene	ND	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**4900**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**3900**	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**4600**	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
218-01-9	**Chrysene**	**6200**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**8700**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
86-73-7	Fluorene	ND	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2300	ug/kg dry	1	05/31/17	B7E2302	8270	
91-20-3	**Naphthalene**	**4200**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**9700**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
129-00-0	**Pyrene**	**13000**	1100	ug/kg dry	1	05/31/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*88.5 %*	*32.9-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*52.8 %*	*31.8-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*94.2 %*	*38.5-115*		*05/31/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	A03, A07

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Client ID: QMCM-SB20-0"-6"

Lab ID: 1705195-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**13**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**30**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**1800**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**20**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**64**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB20-6''-4'

Lab ID: 1705195-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15**
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	

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Client ID: QMCM-SB20-6''-4'

Lab ID: 1705195-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*104 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*113 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

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Client ID: QMCM-SB20-6''-4'

Lab ID: 1705195-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	05/31/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	05/31/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	05/31/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*94.7 %*	*32.9-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*71.5 %*	*31.8-115*		*05/31/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*38.5-115*		*05/31/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.7**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB20-6''-4'

Lab ID: 1705195-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.7**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**10**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**5.4**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**20**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	Lead	ND	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**6.7**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SB22-12"-18"

Lab ID: 1705195-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**230**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**460**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	**2-Methylnaphthalene**	**1000**	730	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	2900	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	**Benzene**	**210**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	580	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	

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Client ID: QMCM-SB22-12"-18"

Lab ID: 1705195-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	580	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	**Ethylbenzene**	**170**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	**Hexane**	**320**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	**m & p - Xylene**	**1200**	290	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	290	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	**Naphthalene**	**1000**	730	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	**o-Xylene**	**720**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	7300	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	730	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	**Toluene**	**1400**	150	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	150	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*117 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*121 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB22-12"-18"

Lab ID: 1705195-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1100**	940	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	380	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	380	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	380	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**2200**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**2100**	750	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**2400**	750	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1200**	750	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	**Benzo[k]fluoranthene**	**990**	750	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**2600**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	750	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**3900**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	380	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**900**	750	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	**Naphthalene**	**810**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**2200**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**5000**	380	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*96.6 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*71.4 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*79.1 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**53.2**	0.1	%	1	05/24/17	B7E2413	2540 B	N
57-12-5	Available Cyanide	ND	0.19	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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TEL: (517) 335-9800
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Client ID: QMCM-SB22-12"-18"

Lab ID: 1705195-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.5**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**42**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**2100**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	**Lead**	**11**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.09	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**68**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
170595	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843		**Accept Analysis hold time codes**	Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**		**Contract Firm Primary Contact**
keranena@michigan.gov	456457	Test America- asbestos	N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SB01 0-6"	5-17-17			
2	02	QMCM-SB01 6"-8'				
3	03	QMCM-SB01 0-6" Dup				
4	04	QMCM-SB01 6"-8' Dup				
5	05	QMCM-SB02 4"-10"				
6	06	QMCM-SB02 10"-4'				
7	07	QMCM-SB03 0-6"				
8	08	QMCM-SB03 6"-5'				
9	09	QMCM-SB04 6"-12"				
10	10	QMCM-SB04 12"-24"				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

METALS CHEMISTRY PACKAGES

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,Tl,V,Zn}	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
{As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn}	

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Mike Priebe / MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe / MDEQ	Melissa Smith COSC	5/19/17 1050
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
170595	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SB 19-0-6"	5/17/17	1630		
2	12	QMCM-SB 19-6"-7'	"	1634		
3	13	QMCM-SB 19-6"-7' dup	"	1634		
4	14	QMCM-SB 18 0-6"	5-18-17	85"		
5	15	QMCM-SB 18 6"-8'	5-18-17	85"		
6	16	QMCM-SB 17 0-6"	5-18-17	0930		
7	17	QMCM-SB 17 6"-6'	5-18-17	0930		
8	18	QMCM-SB 20-0"-6"	5-18-17	1010		
9	19	QMCM-SB 20-6"-4'	5-18-17	1010		
10	20	QMCM-SB 22-12"-18"	5-18-17	1035		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- Volatiles - Full List: 1 2 3 4 5 6 7 8 9 10 (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 (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

METALS CHEMISTRY PACKAGES
- 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,Tl,V,Zn)
- Michigan10 - Total: 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS
- Silver - Ag: 1 2 3 4 5 6 7 8 9 10 (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 (1 2 3 4 5 6 7 8 9 10)
- Barium - Ba: 1 2 3 4 5 6 7 8 9 10 (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 (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 (1 2 3 4 5 6 7 8 9 10)
- Copper - Cu: 1 2 3 4 5 6 7 8 9 10 (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 (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 (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 (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 (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

GENERAL CHEMISTRY
- 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 (1 2 3 4 5 6 7)
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- Total Phosphorus - TP: 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Jeff Pinnabe DEQ	Mike Priebe /MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe /MDEQ	Melissa Smith DEQ	5/19/17 1050
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

21 June 2017

Work Order: 1705196

Price: $13,796.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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FAX: (517) 335-9600

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/21/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SB05 0-6"	1705196-01	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB05 6"-10'	1705196-02	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB06 0-6"	1705196-03	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB06 6"-12'	1705196-04	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB07 0-6"	1705196-05	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB07 6"-4'	1705196-06	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB08 0-6"	1705196-07	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB08 6"-30"	1705196-08	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB10 0-6"	1705196-09	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB10 6"-10'	1705196-10	Soil/Sediment	05/16/2017	05/19/2017	
QMCM-SB13 0-6"	1705196-11	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB13 6"-4'	1705196-12	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB14 0-6"	1705196-13	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB14 6"-3'	1705196-14	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB15 6"-12"	1705196-15	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB15 12"-4'	1705196-16	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB12-0-6"	1705196-17	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB12-6"-3'	1705196-18	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB16-0-6"	1705196-19	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB16-6"-6'	1705196-20	Soil/Sediment	05/17/2017	05/19/2017	
QMCM-SB22-18"-4'	1705196-21	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB23-6"-12"	1705196-22	Soil/Sediment	05/18/2017	05/19/2017	
QMCM-SB23-12"-6'	1705196-23	Soil/Sediment	05/18/2017	05/19/2017	

Lab Work Order # 1705196

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Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
100	Unidentified peak present in the sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
Y26	Sample was not covered with methanol. Results are estimated.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
Y11	Unidentified peaks present in sample.
Y15	Methanol leaked out of the vial in transit to the lab. Results and reporting limits are estimated.
Y17	Probable petroleum product(s) present.
Y20	Reporting Limits (RL) raised due to matrix.
Y21	Reporting Limits (RL) raised due to matrix interference.
A11	Result is estimated due to high initial verification standard criteria failure.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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

Client ID: QMCM-SB05 0-6"

Lab ID: 1705196-01

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	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	

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Client ID: QMCM-SB05 0-6"

Lab ID: 1705196-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	o-Xylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	Toluene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*103 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*113 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*114 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

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Client ID: QMCM-SB05 0-6"

Lab ID: 1705196-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*84.7 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*62.2 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*107 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	100	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*98.7 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Client ID: QMCM-SB05 0-6"

Lab ID: 1705196-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**95.6**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.10	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.7**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**16**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**6.7**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**12**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	Lead	ND	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**7.6**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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Client ID: QMCM-SB05 6''-10'

Lab ID: 1705196-02

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	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	Benzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	

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Lab ID: 1705196-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	Ethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	Hexane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	o-Xylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	Toluene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*111 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*116 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*119 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB05 6''-10'

Lab ID: 1705196-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*85.4 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*64.5 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*113 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*115 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*105 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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

Client ID: QMCM-SB05 6''-10'

Lab ID: 1705196-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.7**	0.5	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-39-3	**Barium**	**11**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-47-3	**Chromium**	**8.0**	2.0	mg/kg dry	10	06/09/17	B7E3015	6020/200.8	
7440-50-8	**Copper**	**13**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-92-1	Lead	ND	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	
7440-66-6	**Zinc**	**9.3**	1.0	mg/kg dry	10	06/08/17	B7E3015	6020/200.8	

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

Client ID: QMCM-SB06 0-6"

Lab ID: 1705196-03

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	05/22/17	B7E2207	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
540-84-1	2,2,4-Trimethylpentane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/22/17	B7E2207	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
71-43-2	Benzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/22/17	B7E2207	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	

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

Client ID: QMCM-SB06 0-6"

Lab ID: 1705196-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	A05
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/22/17	B7E2207	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
100-41-4	Ethylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
110-54-3	Hexane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
98-82-8	Isopropylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/22/17	B7E2207	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	X
104-51-8	n-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
103-65-1	n-Propylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
95-47-6	o-Xylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/22/17	B7E2207	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/22/17	B7E2207	8260	
108-88-3	Toluene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	05/22/17	B7E2207	8260	
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*05/22/17*	B7E2207	*8260*	
Surrogate: Dibromofluoromethane			*113 %*	*52.1-217*		*05/22/17*	B7E2207	*8260*	
Surrogate: Toluene-d8			*114 %*	*55.4-196*		*05/22/17*	B7E2207	*8260*	

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TEL: (517) 335-9800
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Client ID: QMCM-SB06 0-6"

Lab ID: 1705196-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**210**	210	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*96.5 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*69.5 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*104 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*107 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*98.0 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Lab ID: 1705196-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.9**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.9**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**19**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**390**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**7.5**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.6**	0.05	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.8**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**54**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB06 6''-12'

Lab ID: 1705196-04

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	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	

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Lab ID: 1705196-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*113 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*120 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*121 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Client ID: QMCM-SB06 6''-12'

Lab ID: 1705196-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*83.0 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*62.6 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*116 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*116 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*108 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Lab ID: 1705196-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**15**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**8.5**	4.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**11**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7439-92-1	Lead	ND	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.4	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**9.3**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB07 0-6"

Lab ID: 1705196-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15, Y26**
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	

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Lab ID: 1705196-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15, Y26**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**84**	61	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*124 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethone			*136 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*134 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB07 0-6"

Lab ID: 1705196-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20, Y21**
91-57-6	2-Methylnaphthalene	ND	2800	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**2700**	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**2700**	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**4000**	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**2700**	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**8000**	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2200	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**6400**	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**6700**	1100	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*89.0 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*57.1 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*97.5 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*101 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Client ID: QMCM-SB07 0-6"

Lab ID: 1705196-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.1**	0.1	%	1	05/24/17	B7E2413	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.1**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**310**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**30**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1323	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**33**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB07 6''-4'

Lab ID: 1705196-06

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	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB07 6''-4'

Lab ID: 1705196-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*123 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*131 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*132 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**390**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**270**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**350**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*85.7 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*62.7 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*97.6 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*139 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*130 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB07 6''-4'

Lab ID: 1705196-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.3**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.6**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**150**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**14**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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

Client ID: QMCM-SB08 0-6"

Lab ID: 1705196-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB08 0-6"

Lab ID: 1705196-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*119 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*127 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*129 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB08 0-6"

Lab ID: 1705196-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	**Anthracene**	**380**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**640**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**610**	460	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**810**	460	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**610**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**1700**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	**Fluorene**	**220**	230	ug/kg dry	1	06/05/17	B7E2302	8270	T
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	**Naphthalene**	**320**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**1700**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**1300**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*91.8 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*64.3 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*93.9 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	320	ug/kg dry	1	06/04/17	B7E3022	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	420	ug/kg dry	1	06/04/17	B7E3022	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	420	ug/kg dry	1	06/04/17	B7E3022	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*113 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.5 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Client ID: QMCM-SB08 0-6"

Lab ID: 1705196-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.5**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.3**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**22**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**4000**	100	mg/kg dry	1000	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**92**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**2.1**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**48**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB08 6''-30''

Lab ID: 1705196-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB08 6''-30''

Lab ID: 1705196-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	70	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*117 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*129 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*125 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB08 6''-30''

Lab ID: 1705196-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*92.8 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*70.4 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*102 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*131 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*119 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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Client ID: QMCM-SB08 6''-30''

Lab ID: 1705196-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.3**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.6**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**9.4**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**5.7**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**96**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**2.0**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**9.4**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB10 0-6"

Lab ID: 1705196-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y26**
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	

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DEPARTMENT OF ENVIRONMENTAL QUALITY

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Client ID: QMCM-SB10 0-6"

Lab ID: 1705196-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y26**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*120 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*128 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*130 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Lab ID: 1705196-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**220**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*86.8 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*63.1 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*98.8 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*147 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*131 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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

Client ID: QMCM-SB10 0-6"

Lab ID: 1705196-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.1**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.9**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**15**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**9.8**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**530**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**6.9**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**27**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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

Client ID: QMCM-SB10 6''-10'

Lab ID: 1705196-10

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	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB10 6''-10'

Lab ID: 1705196-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*118 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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

Client ID: QMCM-SB10 6''-10'

Lab ID: 1705196-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*84.5 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*63.1 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*105 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*124 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*118 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Client ID: QMCM-SB10 6''-10'

Lab ID: 1705196-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.9**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**8.1**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**50**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**1.3**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**13**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB13 0-6"

Lab ID: 1705196-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**120**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**290**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	**2-Methylnaphthalene**	**720**	420	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1700	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	340	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	

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TEL: (517) 335-9800
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Client ID: QMCM-SB13 0-6"

Lab ID: 1705196-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	340	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	**Ethylbenzene**	**130**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	**Hexane**	**85**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	**Isopropylbenzene**	**95**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	**m & p - Xylene**	**610**	170	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	170	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	**Naphthalene**	**760**	420	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	**n-Propylbenzene**	**120**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	**o-Xylene**	**500**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	4200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	420	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**510**	85	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	85	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*119 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*122 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Client ID: QMCM-SB13 0-6"

Lab ID: 1705196-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**6400**	660	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	**Acenaphthene**	**570**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	270	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	**Anthracene**	**1200**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**3500**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**2900**	530	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**3300**	530	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1200**	530	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	**Benzo[k]fluoranthene**	**890**	530	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**4800**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	530	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**6600**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	**Fluorene**	**670**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**980**	530	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	**Naphthalene**	**4100**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**9900**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**10000**	270	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*93.1 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*67.3 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*85.1 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**75.2**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

Lab Work Order # 1705196

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**56**	5.0	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**100**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**23**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**540**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**95**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.4**	0.07	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	**Selenium**	**1.2**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**2.2**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**49**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB13 6''-4'

Lab ID: 1705196-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
71-55-6	1,1,1-Trichloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
79-00-5	1,1,2-Trichloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-34-3	1,1-Dichloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-35-4	1,1-Dichloroethylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
96-18-4	1,2,3-Trichloropropane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**72**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**180**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
106-93-4	1,2-Dibromoethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
95-50-1	1,2-Dichlorobenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
107-06-2	1,2-Dichloroethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
78-87-5	1,2-Dichloropropane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
541-73-1	1,3-Dichlorobenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
106-46-7	1,4-Dichlorobenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
540-84-1	2,2,4-Trimethylpentane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/24/17	B7E2407	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
71-43-2	**Benzene**	**84**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
74-97-5	Bromochloromethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-27-4	Bromodichloromethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-25-2	Bromoform	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
75-15-0	Carbon disulfide	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
56-23-5	Carbon tetrachloride	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
108-90-7	Chlorobenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
67-66-3	Chloroform	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
124-48-1	Dibromochloromethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
74-95-3	Dibromomethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	

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Lab ID: 1705196-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
100-41-4	**Ethylbenzene**	**65**	68	ug/kg dry	50	05/24/17	B7E2407	8260	T
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
110-54-3	**Hexane**	**94**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
98-82-8	Isopropylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
1330-20-7	**m & p - Xylene**	**340**	140	ug/kg dry	50	05/24/17	B7E2407	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/24/17	B7E2407	8260	
1634-04-4	Methyltertiarybutylether	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	X
104-51-8	n-Butylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
103-65-1	n-Propylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
95-47-6	**o-Xylene**	**250**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
135-98-8	sec-Butylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
100-42-5	Styrene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
98-06-6	tert-Butylbenzene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	05/24/17	B7E2407	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
127-18-4	Tetrachloroethylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
108-88-3	**Toluene**	**340**	68	ug/kg dry	50	05/24/17	B7E2407	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
79-01-6	Trichloroethylene	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-69-4	Trichlorofluoromethane	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
75-01-4	Vinyl chloride	ND	68	ug/kg dry	50	05/24/17	B7E2407	8260	
Surrogate: Bromofluorobenzene			*96.7 %*	*40.3-194*		*05/24/17*	B7E2407	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*52.1-217*		*05/24/17*	B7E2407	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*05/24/17*	B7E2407	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1100**	580	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	**Naphthalene**	**980**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**590**	230	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*78.8 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*52.8 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*80.8 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.4**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB13 6''-4'

Lab ID: 1705196-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**14**	1.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**21**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**19**	4.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**1800**	100	mg/kg dry	1000	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**4.7**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.4	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**60**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	

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

Client ID: QMCM-SB14 0-6"

Lab ID: 1705196-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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Client ID: QMCM-SB14 0-6"

Lab ID: 1705196-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*132 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*148 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*145 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB14 0-6"

Lab ID: 1705196-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	**Anthracene**	**350**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**2800**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**2400**	440	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**2800**	440	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1300**	440	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	**Benzo[k]fluoranthene**	**1000**	440	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**3800**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**4700**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**980**	440	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**2400**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**6900**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*95.5 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*65.9 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*82.6 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.1**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

STATE OF MICHIGAN
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Client ID: QMCM-SB14 0-6"

Lab ID: 1705196-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.7**	1.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**45**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**24**	4.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**2600**	100	mg/kg dry	1000	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**7.6**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.06**	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.4	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**70**	2.0	mg/kg dry	20	06/09/17	B7F0101	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB14 6''-3'

Lab ID: 1705196-14

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	05/24/17	B7E2407	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**61**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
540-84-1	2,2,4-Trimethylpentane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/24/17	B7E2407	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
71-43-2	Benzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/24/17	B7E2407	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCM-SB14 6''-3'

Lab ID: 1705196-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/24/17	B7E2407	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
100-41-4	Ethylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
110-54-3	Hexane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
98-82-8	Isopropylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
1330-20-7	**m & p - Xylene**	**100**	110	ug/kg dry	50	05/24/17	B7E2407	8260	T
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/24/17	B7E2407	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	X
104-51-8	n-Butylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
103-65-1	n-Propylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
95-47-6	**o-Xylene**	**70**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/24/17	B7E2407	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/24/17	B7E2407	8260	
108-88-3	**Toluene**	**110**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
Surrogate: Bromofluorobenzene			*98.5 %*	*40.3-194*		*05/24/17*	B7E2407	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*52.1-217*		*05/24/17*	B7E2407	*8260*	
Surrogate: Toluene-d8			*100 %*	*55.4-196*		*05/24/17*	B7E2407	*8260*	

Lab Work Order # 1705196

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Client ID: QMCM-SB14 6''-3'

Lab ID: 1705196-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	06/05/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
120-12-7	**Anthracene**	**580**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
56-55-3	**Benz[a]anthracene**	**3400**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
50-32-8	**Benzo[a]pyrene**	**3100**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
205-99-2	**Benzo[b]fluoranthene**	**3300**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1600**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
207-08-9	**Benzo[k]fluoranthene**	**1300**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
218-01-9	**Chrysene**	**4900**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
53-70-3	**Dibenz[a,h]anthracene**	**440**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
206-44-0	**Fluoranthene**	**6200**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/05/17	B7E2302	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1200**	430	ug/kg dry	1	06/05/17	B7E2302	8270	
91-20-3	**Naphthalene**	**250**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
85-01-8	**Phenanthrene**	**4300**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
129-00-0	**Pyrene**	**9200**	220	ug/kg dry	1	06/05/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*96.4 %*	*32.9-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*67.7 %*	*31.8-115*		*06/05/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*84.8 %*	*38.5-115*		*06/05/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.8**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

Lab Work Order # 1705196

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.6**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**1400**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**13**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.09**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**50**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB15 6''-12''

Lab ID: 1705196-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**250**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**710**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**140**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	**2-Methylnaphthalene**	**1600**	270	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	**Benzene**	**150**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	**Cyclohexane**	**880**	270	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB15 6''-12''

Lab ID: 1705196-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	**Ethylbenzene**	**280**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	**Hexane**	**440**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	**Isopropylbenzene**	**100**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	**m & p - Xylene**	**1800**	110	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	**Naphthalene**	**1400**	270	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	**n-Butylbenzene**	**70**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	**n-Propylbenzene**	**140**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	**o-Xylene**	**1000**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	2700	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	270	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**1600**	54	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	54	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*108 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*116 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*119 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	06/06/17	B7E2302	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	06/06/17	B7E2302	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	06/06/17	B7E2302	8270	
129-00-0	**Pyrene**	**250**	210	ug/kg dry	1	06/06/17	B7E2302	8270	
Surrogate: 2-Fluorobiphenyl			*76.9 %*	*32.9-115*		*06/06/17*	B7E2302	*8270*	
Surrogate: Nitrobenzene-d5			*56.6 %*	*31.8-115*		*06/06/17*	B7E2302	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*38.5-115*		*06/06/17*	B7E2302	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**95.5**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.10	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB15 6''-12''

Lab ID: 1705196-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**14**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**4.9**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**34**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**3600**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**5.0**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**3.5**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**95**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB15 12''-4'

Lab ID: 1705196-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCM-SB15 12''-4'

Lab ID: 1705196-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*115 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*123 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*124 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SB15 12''-4'

Lab ID: 1705196-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*75.5 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*69.5 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*90.4 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.1**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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TEL: (517) 335-9800
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Client ID: QMCM-SB15 12''-4'

Lab ID: 1705196-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.9**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**4.3**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**27**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**4500**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**3.6**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.09**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**3.2**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**70**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB12-0-6"

Lab ID: 1705196-17

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	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**61**	63	ug/kg dry	50	05/23/17	B7E2308	8260	T
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**150**	63	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	**2-Methylnaphthalene**	**390**	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB12-0-6"

Lab ID: 1705196-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	**m & p - Xylene**	**240**	130	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	**Naphthalene**	**320**	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	**o-Xylene**	**190**	63	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**200**	63	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*122 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*131 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*131 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB12-0-6"

Lab ID: 1705196-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**560**	550	ug/kg dry	1	06/08/17	B7E2501	8270	
83-32-9	**Acenaphthene**	**260**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
120-12-7	**Anthracene**	**1200**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
56-55-3	**Benz[a]anthracene**	**5200**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
50-32-8	**Benzo[a]pyrene**	**4800**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
205-99-2	**Benzo[b]fluoranthene**	**5000**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
191-24-2	**Benzo[g,h,i]perylene**	**2600**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
207-08-9	**Benzo[k]fluoranthene**	**1600**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
218-01-9	**Chrysene**	**7200**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
53-70-3	**Dibenz[a,h]anthracene**	**700**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**8800**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
86-73-7	**Fluorene**	**290**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**2000**	440	ug/kg dry	1	06/08/17	B7E2501	8270	
91-20-3	**Naphthalene**	**410**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
85-01-8	**Phenanthrene**	**7000**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
129-00-0	**Pyrene**	**17000**	2200	ug/kg dry	10	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*83.6 %*	*32.9-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*58.9 %*	*31.8-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*87.4 %*	*38.5-115*		*06/08/17*	B7E2501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.9**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB12-0-6"

Lab ID: 1705196-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.6**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**49**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.08**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**52**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB12-6''-3'

Lab ID: 1705196-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**78**	67	ug/kg dry	50	05/24/17	B7E2407	8260	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
540-84-1	2,2,4-Trimethylpentane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/24/17	B7E2407	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
71-43-2	Benzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-25-2	Bromoform	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
67-66-3	Chloroform	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	

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Client ID: QMCM-SB12-6''-3'

Lab ID: 1705196-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
110-54-3	Hexane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
1330-20-7	**m & p - Xylene**	**150**	130	ug/kg dry	50	05/24/17	B7E2407	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/24/17	B7E2407	8260	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	X
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
95-47-6	**o-Xylene**	**100**	67	ug/kg dry	50	05/24/17	B7E2407	8260	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
100-42-5	Styrene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	05/24/17	B7E2407	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	05/24/17	B7E2407	8260	
108-88-3	**Toluene**	**180**	67	ug/kg dry	50	05/24/17	B7E2407	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	05/24/17	B7E2407	8260	
Surrogate: Bromofluorobenzene			*95.2 %*	*40.3-194*		*05/24/17*	B7E2407	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*52.1-217*		*05/24/17*	B7E2407	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*05/24/17*	B7E2407	*8260*	

Lab Work Order # 1705196

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Client ID: QMCM-SB12-6''-3'

Lab ID: 1705196-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**610**	590	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	**Anthracene**	**260**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	**Benz[a]anthracene**	**1700**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	**Benzo[a]pyrene**	**1200**	470	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	**Benzo[b]fluoranthene**	**1400**	470	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	**Benzo[g,h,i]perylene**	**660**	470	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	**Benzo[k]fluoranthene**	**450**	470	ug/kg dry	1	06/07/17	B7E2317	8270	T
218-01-9	**Chrysene**	**2000**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	**Fluoranthene**	**2600**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**540**	470	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	**Naphthalene**	**710**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	**Phenanthrene**	**2000**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	**Pyrene**	**4300**	240	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*81.9 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*68.8 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*90.5 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.5**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

Lab Work Order # 1705196

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Client ID: QMCM-SB12-6''-3'

Lab ID: 1705196-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.3**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**25**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**10**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**370**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**14**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**19**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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Client ID: QMCM-SB16-0-6"

Lab ID: 1705196-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**140**	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	

STATE OF MICHIGAN
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Client ID: QMCM-SB16-0-6"

Lab ID: 1705196-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	**m & p - Xylene**	**250**	130	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	**o-Xylene**	**200**	64	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**200**	64	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*117 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*127 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*128 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Lab ID: 1705196-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1600**	570	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	**Benz[a]anthracene**	**260**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	**Chrysene**	**320**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	**Fluoranthene**	**390**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	**Naphthalene**	**1000**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	**Phenanthrene**	**930**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	**Pyrene**	**490**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*79.6 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*70.8 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*93.5 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.2**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.2**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**31**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**1400**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**54**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	**Mercury**	**0.07**	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**98**	10	mg/kg dry	100	06/09/17	B7F0101	6020/200.8	

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DEPARTMENT OF ENVIRONMENTAL QUALITY

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Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: QMCM-SB16-6''-6'

Lab ID: 1705196-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**62**	64	ug/kg dry	50	05/23/17	B7E2308	8260	T
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	**Toluene**	**73**	64	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*132 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*147 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*146 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB16-6''-6'

Lab ID: 1705196-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	**Naphthalene**	**330**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	**Phenanthrene**	**240**	230	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*78.2 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*63.1 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*85.5 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.4**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB16-6''-6'

Lab ID: 1705196-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.3**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**21**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**8.6**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**510**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**3.0**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**21**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SB22-18''-4'

Lab ID: 1705196-21

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	05/23/17	B7E2308	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
540-84-1	2,2,4-Trimethylpentane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2308	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	

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Client ID: QMCM-SB22-18''-4'

Lab ID: 1705196-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	05/23/17	B7E2308	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2308	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	X
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	05/23/17	B7E2308	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	05/23/17	B7E2308	8260	
108-88-3	Toluene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	05/23/17	B7E2308	8260	
Surrogate: Bromofluorobenzene			*115 %*	*40.3-194*		*05/23/17*	B7E2308	*8260*	
Surrogate: Dibromofluoromethane			*123 %*	*52.1-217*		*05/23/17*	B7E2308	*8260*	
Surrogate: Toluene-d8			*127 %*	*55.4-196*		*05/23/17*	B7E2308	*8260*	

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Client ID: QMCM-SB22-18''-4'

Lab ID: 1705196-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*77.8 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*73.4 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*89.5 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.2**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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Client ID: QMCM-SB22-18''-4'

Lab ID: 1705196-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.8**	0.5	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-39-3	**Barium**	**5.2**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-47-3	**Chromium**	**4.4**	2.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-50-8	**Copper**	**82**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-92-1	**Lead**	**1.1**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	
7440-66-6	**Zinc**	**6.3**	1.0	mg/kg dry	10	06/09/17	B7F0101	6020/200.8	

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FAX: (517) 335-9600

Client ID: QMCM-SB23-6"-12"

Lab ID: 1705196-22

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**350**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**890**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**200**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
540-84-1	2,2,4-Trimethylpentane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
78-93-3	2-Butanone (MEK)	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
91-57-6	**2-Methylnaphthalene**	**2000**	270	ug/kg dry	50	05/24/17	B7E2407	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/24/17	B7E2407	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
107-13-1	Acrylonitrile	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
71-43-2	**Benzene**	**300**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/24/17	B7E2407	8260	
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-00-3	Chloroethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
67-66-3	Chloroform	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-87-3	Chloromethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
110-82-7	**Cyclohexane**	**1100**	270	ug/kg dry	50	05/24/17	B7E2407	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	

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Client ID: QMCM-SB23-6"-12"

Lab ID: 1705196-22

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/24/17	B7E2407	8260	
108-20-3	Diisopropyl Ether	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
100-41-4	**Ethylbenzene**	**240**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
637-92-3	Ethyltertiarybutylether	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
67-72-1	Hexachloroethane	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
110-54-3	**Hexane**	**470**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
98-82-8	**Isopropylbenzene**	**130**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
1330-20-7	**m & p - Xylene**	**1800**	110	ug/kg dry	50	05/24/17	B7E2407	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/24/17	B7E2407	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
91-20-3	**Naphthalene**	**1900**	270	ug/kg dry	50	05/24/17	B7E2407	8260	X
104-51-8	**n-Butylbenzene**	**91**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
103-65-1	**n-Propylbenzene**	**160**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
95-47-6	**o-Xylene**	**1200**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-65-0	tertiary Butyl Alcohol	ND	2700	ug/kg dry	50	05/24/17	B7E2407	8260	
994-05-8	tertiaryAmylmethylether	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
109-99-9	Tetrahydrofuran	ND	270	ug/kg dry	50	05/24/17	B7E2407	8260	
108-88-3	**Toluene**	**1600**	55	ug/kg dry	50	05/24/17	B7E2407	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	05/24/17	B7E2407	8260	
Surrogate: Bromofluorobenzene			*102 %*	*40.3-194*		*05/24/17*	B7E2407	*8260*	
Surrogate: Dibromofluoromethane			*113 %*	*52.1-217*		*05/24/17*	B7E2407	*8260*	
Surrogate: Toluene-d8			*109 %*	*55.4-196*		*05/24/17*	B7E2407	*8260*	

Lab Work Order # 1705196

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**1300**	530	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	**Benz[a]anthracene**	**390**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	**Chrysene**	**480**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	**Fluoranthene**	**530**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	**Naphthalene**	**810**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	**Phenanthrene**	**890**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	**Pyrene**	**630**	210	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*77.6 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*64.3 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*84.3 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.8**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.3**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**1900**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**10**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**2.0**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**70**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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Lab ID: 1705196-23

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**160**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**410**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**93**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
540-84-1	2,2,4-Trimethylpentane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
91-57-6	**2-Methylnaphthalene**	**1000**	310	ug/kg dry	50	05/23/17	B7E2328	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/23/17	B7E2328	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
71-43-2	**Benzene**	**77**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/23/17	B7E2328	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
110-82-7	**Cyclohexane**	**530**	310	ug/kg dry	50	05/23/17	B7E2328	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	

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Lab ID: 1705196-23

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/23/17	B7E2328	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
100-41-4	**Ethylbenzene**	**95**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
110-54-3	**Hexane**	**150**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
1330-20-7	**m & p - Xylene**	**680**	120	ug/kg dry	50	05/23/17	B7E2328	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/23/17	B7E2328	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
91-20-3	**Naphthalene**	**800**	310	ug/kg dry	50	05/23/17	B7E2328	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
103-65-1	**n-Propylbenzene**	**62**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
95-47-6	**o-Xylene**	**470**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	05/23/17	B7E2328	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	05/23/17	B7E2328	8260	
108-88-3	**Toluene**	**530**	61	ug/kg dry	50	05/23/17	B7E2328	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	05/23/17	B7E2328	8260	
Surrogate: Bromofluorobenzene			*103 %*	*40.3-194*		*05/23/17*	B7E2328	*8260*	
Surrogate: Dibromofluoromethane			*95.8 %*	*52.1-217*		*05/23/17*	B7E2328	*8260*	
Surrogate: Toluene-d8			*101 %*	*55.4-196*		*05/23/17*	B7E2328	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**910**	540	ug/kg dry	1	06/07/17	B7E2317	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
56-55-3	**Benz[a]anthracene**	**240**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
218-01-9	**Chrysene**	**290**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
206-44-0	**Fluoranthene**	**280**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/07/17	B7E2317	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/07/17	B7E2317	8270	
91-20-3	**Naphthalene**	**580**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
85-01-8	**Phenanthrene**	**630**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
129-00-0	**Pyrene**	**400**	220	ug/kg dry	1	06/07/17	B7E2317	8270	
Surrogate: 2-Fluorobiphenyl			*82.5 %*	*32.9-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: Nitrobenzene-d5			*69.1 %*	*31.8-115*		*06/07/17*	B7E2317	*8270*	
Surrogate: p-Terphenyl-d14			*91.8 %*	*38.5-115*		*06/07/17*	B7E2317	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.5**	0.1	%	1	05/24/17	B7E2414	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	05/31/17	B7E3008	OIA-1677	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB23-12''-6'

Lab ID: 1705196-23

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.2**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**5100**	100	mg/kg dry	1000	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**6.1**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	06/14/17	B7F1324	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**3.0**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**51**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
17 05196	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457	Test America- asbestos	N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SB05 0-6"	5-16-17			
2	02	QMCM-SB05 6"-10'				
3	03	QMCM-SB06 0-6"				
4	04	QMCM-SB06 6"-12'				
5	05	QMCM-SB 07 0-6"				
6	06	QMCM-SB 07 6"-4'				
7	07	QMCM-SB08 0 6"				
8	08	QMCM-SB08 6"-30"				
9	09	QMCM-SB 10 0-6"				
10	10	QMCM-SB 10 6"-10'				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

METALS CHEMISTRY PACKAGES

- 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,Tl,V,Zn)
- Michigan10 - Total: 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

- 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

GENERAL CHEMISTRY

GS - General Chemistry #01
- 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
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- Total Phosphorus - TP: 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Mike Priebe / MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe / MDEQ		5/19/17 1051
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
D0519L	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457	Test America- asbestos	N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SB 13- 0-6"	5-17-17	1325		
2	12	QMCM-SB 13- 6"- 4'	5-17-17	1326		
3	13	QMCM-SB 14- 0-6"		1440		
4	14	QMCM-SB 14 - 6"-3'		1440		
5	15	QMCM-SB 15 - 6"-12"		1400		
6	16	QMCM-SB 15- 12"-4'		1400		
7	17	QMCM-SB 12- 0-6"		1510		
8	18	QMCM-SB 12- 6"-3'		1515		
9	19	QMCM-SB 10- 0'-6"		1600		
10	20	QMCM-SB 16 - 6"-6'		1605		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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
PCOs only	NO [redacted] 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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org.: JEFF PINCUMBE DEQ	Mike Priebe / MDEQ	5/18/17 1200
Signature:		
Print Name & Org.: Mike Priebe / MDEQ		5/19/17 1051
Signature:		
Print Name & Org.:		
Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
175196	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	21	QMCM-SB 22- 18"-4'	5/18/17	1040		
2	22	QMCM-SB 23-6"-12"	↓	1125		
3	23	QMCM-SB 23-12"-6'	↓	1128		Sample ID SB-23 1'-6'
4		QMCM-SB				
5		QMCM-SB				
6		QMCM-SB				
7		QMCM-SB				
8		QMCM-SB				
9		QMCM-SB				
10		QMCM-SB				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

Volatiles - Full List	(1) (2) (3) 4 5 6 7 8 9 10
BTEX/MTBE/TMO 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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,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
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Totaf Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Mike Priebe /MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe / MDEQ		5/18/17 1051
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

21 June 2017

Work Order: 1705197

Price: $6,644.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCM Ops	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	06/21/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-GW01 12-14'	1705197-01	Water	05/17/2017	05/19/2017	
QMCM-GW02 10-12'	1705197-02	Water	05/17/2017	05/19/2017	
QMCM-GW03 10-12'	1705197-03	Water	05/17/2017	05/19/2017	
QMCM-GW04 8-10'	1705197-04	Water	05/17/2017	05/19/2017	
QMCM-GW13 8-13'	1705197-05	Water	05/17/2017	05/19/2017	
QMCM-GW14 8-13'	1705197-06	Water	05/17/2017	05/19/2017	
QMCM-GW15 8-13'	1705197-07	Water	05/17/2017	05/19/2017	
QMCM-GW15 8-13' dup	1705197-08	Water	05/17/2017	05/19/2017	
QMCM-GW12 8-13'	1705197-09	Water	05/17/2017	05/19/2017	
QMCM-GW16 10'-15'	1705197-10	Water	05/17/2017	05/19/2017	
QMCM-GW19-10'-15'	1705197-11	Water	05/17/2017	05/19/2017	
QMCM-GW18 12-17'	1705197-12	Water	05/18/2017	05/19/2017	
QMCM-GW17 10-15'	1705197-13	Water	05/18/2017	05/19/2017	
QMCM-GW20 10-15'	1705197-14	Water	05/18/2017	05/19/2017	
QMCM-GW22 10-15'	1705197-15	Water	05/18/2017	05/19/2017	
QMCM-GW23 10-15'	1705197-16	Water	05/18/2017	05/19/2017	

Notes and Definitions

Y24	Sample decanted due to sediment layer. Data is estimated.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
KR	Reporting limit(s) raised due to low sample volume submitted.
A12	Result is estimated due to inter-replicate sample analysis RSD > 10%.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A05	Result and reporting limit 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 compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW01 12-14'

Lab ID: 1705197-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW01 12-14'

Lab ID: 1705197-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.6 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.6 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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TEL: (517) 335-9800
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Client ID: QMCM-GW01 12-14'

Lab ID: 1705197-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*64.6 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*65.5 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*92.4 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	05/31/17	B7E2401	8081/8082	
Surrogate: Decachlorobiphenyl			*44.4 %*	*30-150*		*05/31/17*	B7E2401	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*59.6 %*	*30-150*		*05/31/17*	B7E2401	*8081/8082*	

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Client ID: QMCM-GW01 12-14'

Lab ID: 1705197-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**23**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-39-3	**Barium**	**120**	5.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-43-9	**Cadmium**	**0.8**	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-47-3	**Chromium**	**47**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-50-8	**Copper**	**28000**	100	ug/L	100	06/06/17	B7E2424	6020/200.8	
7439-92-1	**Lead**	**140**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7439-97-6	**Mercury**	**1.7**	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-22-4	**Silver**	**25**	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-66-6	**Zinc**	**530**	500	ug/L	100	06/06/17	B7E2424	6020/200.8	

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Client ID: QMCM-GW02 10-12'

Lab ID: 1705197-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A03
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	A03
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Client ID: QMCM-GW02 10-12'

Lab ID: 1705197-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*99.0 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.4 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW02 10-12'

Lab ID: 1705197-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*53.3 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*55.8 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*81.1 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*90.9 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.3 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW02 10-12'

Lab ID: 1705197-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-39-3	**Barium**	**65**	5.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-47-3	**Chromium**	**1.8**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-50-8	**Copper**	**25**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-66-6	**Zinc**	**76**	5.0	ug/L	1	06/06/17	B7E2424	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-GW03 10-12'

Lab ID: 1705197-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Client ID: QMCM-GW03 10-12'

Lab ID: 1705197-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*99.5 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.1 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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Client ID: QMCM-GW03 10-12'

Lab ID: 1705197-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*59.3 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*62.5 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*91.0 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*73.5 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.3 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Lab ID: 1705197-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-39-3	**Barium**	**77**	5.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-47-3	**Chromium**	**4.8**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-50-8	**Copper**	**12**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7439-92-1	**Lead**	**1.0**	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/06/17	B7E2424	6020/200.8	
7440-66-6	**Zinc**	**23**	5.0	ug/L	1	06/06/17	B7E2424	6020/200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW04 8-10'

Lab ID: 1705197-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Client ID: QMCM-GW04 8-10'

Lab ID: 1705197-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*99.8 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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Client ID: QMCM-GW04 8-10'

Lab ID: 1705197-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y24**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*60.5 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*58.8 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*68.8 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*68.2 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*62.2 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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TEL: (517) 335-9800
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Client ID: QMCM-GW04 8-10'

Lab ID: 1705197-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.6**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**94**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**5.4**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**53**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**3.5**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**110**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-GW13 8-13'

Lab ID: 1705197-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Client ID: QMCM-GW13 8-13'

Lab ID: 1705197-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.9 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.8 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW13 8-13'

Lab ID: 1705197-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*60.3 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*60.8 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*85.7 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**65**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**12**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**12**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**35**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW14 8-13'

Lab ID: 1705197-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW14 8-13'

Lab ID: 1705197-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.9 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW14 8-13'

Lab ID: 1705197-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*60.7 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*65.1 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*85.1 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.8**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**240**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**63**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**110**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**16**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	**Selenium**	**1.9**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**100**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW15 8-13'

Lab ID: 1705197-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW15 8-13'

Lab ID: 1705197-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.6 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.8 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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Client ID: QMCM-GW15 8-13'

Lab ID: 1705197-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E1707	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E1707	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E1707	8270	
Surrogate: 2-Fluorobiphenyl			*63.7 %*	*24.1-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: Nitrobenzene-d5			*62.7 %*	*17.8-115*		*05/24/17*	B7E1707	*8270*	
Surrogate: p-Terphenyl-d14			*78.1 %*	*41.8-115*		*05/24/17*	B7E1707	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.5**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**76**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**14**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**36**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**2.8**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**110**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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Client ID: QMCM-GW15 8-13' dup

Lab ID: 1705197-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Lab ID: 1705197-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*99.4 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.7 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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Lab ID: 1705197-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*71.0 %*	*24.1-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*58.1 %*	*17.8-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*91.1 %*	*41.8-115*		*05/24/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**84**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**19**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**38**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**3.6**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**73**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW12 8-13'

Lab ID: 1705197-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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TEL: (517) 335-9800
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Client ID: QMCM-GW12 8-13'

Lab ID: 1705197-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.8 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.9 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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Client ID: QMCM-GW12 8-13'

Lab ID: 1705197-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/24/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*74.6 %*	*24.1-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*63.0 %*	*17.8-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*79.4 %*	*41.8-115*		*05/24/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.0**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**100**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**40**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**230**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**9.8**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**240**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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

Client ID: QMCM-GW16 10'-15'

Lab ID: 1705197-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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Client ID: QMCM-GW16 10'-15'

Lab ID: 1705197-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*100 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW16 10'-15'

Lab ID: 1705197-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/24/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/24/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/24/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*71.2 %*	*24.1-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*61.5 %*	*17.8-115*		*05/24/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*75.8 %*	*41.8-115*		*05/24/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.5**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**170**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**40**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**62**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**7.2**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	**Selenium**	**1.2**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	A12
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**120**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW19-10'-15'

Lab ID: 1705197-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCM-GW19-10'-15'

Lab ID: 1705197-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.7 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.2 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW19-10'-15'

Lab ID: 1705197-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*74.6 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*60.1 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*72.6 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.0**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**130**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**50**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**46**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**4.3**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**95**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW18 12-17'

Lab ID: 1705197-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW18 12-17'

Lab ID: 1705197-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	A05
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2402	8260	
Surrogate: Bromofluorobenzene			*98.4 %*	*85-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/24/17*	B7E2402	*8260*	
Surrogate: Toluene-d8			*99.1 %*	*85-115*		*05/24/17*	B7E2402	*8260*	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-GW18 12-17'

Lab ID: 1705197-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*73.5 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*59.2 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*84.5 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**54**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**4.8**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0509	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**28**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW17 10-15'

Lab ID: 1705197-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2405	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	

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

Client ID: QMCM-GW17 10-15'

Lab ID: 1705197-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2405	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2405	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
Surrogate: Bromofluorobenzene			*101 %*	*85-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/24/17*	B7E2405	*8260*	

Lab Work Order # 1705197

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW17 10-15'

Lab ID: 1705197-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*77.8 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*63.1 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*71.0 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.8**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**600**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**120**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**170**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**12**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	**Selenium**	**1.6**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**200**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW20 10-15'

Lab ID: 1705197-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2405	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	

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Client ID: QMCM-GW20 10-15'

Lab ID: 1705197-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2405	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2405	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
Surrogate: Bromofluorobenzene			*100 %*	*85-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*82.7-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Toluene-d8			*104 %*	*85-115*		*05/24/17*	B7E2405	*8260*	

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Client ID: QMCM-GW20 10-15'

Lab ID: 1705197-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*75.6 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*59.6 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*80.2 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**73**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**6.1**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**11**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**95**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-GW22 10-15'

Lab ID: 1705197-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/24/17	B7E2405	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	

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Client ID: QMCM-GW22 10-15'

Lab ID: 1705197-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/24/17	B7E2405	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/24/17	B7E2405	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/24/17	B7E2405	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/24/17	B7E2405	8260	
Surrogate: Bromofluorobenzene			*91.0 %*	*85-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Dibromofluoromethane			*112 %*	*82.7-115*		*05/24/17*	B7E2405	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/24/17*	B7E2405	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW22 10-15'

Lab ID: 1705197-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*69.4 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*56.6 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*67.8 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.1**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**970**	500	ug/L	100	06/13/17	B7E2606	6020/200.8	
7440-43-9	**Cadmium**	**0.7**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**230**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**380**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**39**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**520**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-GW23 10-15'

Lab ID: 1705197-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/25/17	B7E2403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	

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

Client ID: QMCM-GW23 10-15'

Lab ID: 1705197-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/25/17	B7E2403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/25/17	B7E2403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/25/17	B7E2403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/25/17	B7E2403	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*05/25/17*	B7E2403	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*82.7-115*		*05/25/17*	B7E2403	*8260*	
Surrogate: Toluene-d8			*105 %*	*85-115*		*05/25/17*	B7E2403	*8260*	

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

Client ID: QMCM-GW23 10-15'

Lab ID: 1705197-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*65.8 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*49.5 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*77.1 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-39-3	**Barium**	**61**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-47-3	**Chromium**	**7.9**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-50-8	**Copper**	**15**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-92-1	**Lead**	**1.2**	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/13/17	B7E2606	6020/200.8	
7440-66-6	**Zinc**	**13**	5.0	ug/L	1	06/13/17	B7E2606	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
17 05 19	Abandoned Mining Wastes- QMCM Ops	ground WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457		N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-GW01 12-14'	5-17-17			
2	02	QMCM-GW02 10-12'	5-17-17			
3	03	QMCM-GW 03 ~~8~~ 10-12'	5-17-17			
4	04	QMCM-GW 04 8-10'	5-17-17			
5	05	QMCM-GW 13 8-13'	5-17-17	1345		
6	06	QMCM-GW 14 - 8'-13'		1450		
7	07	QMCM-GW 15 - 8'-13'		1410		
8	08	QMCM-GW 15 - 8'-13' dup		1410		
9	09	QMCM-GW 12 - 8'-13'		1520		
10	10	QMCM-GW 16- 10'-15'		1615		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
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
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - 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
Chlordane	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
Benzidines	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
Acids 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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	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,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved	
Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

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
Boron - B	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
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN	Available Cyanide - CN (Amenable / Weak Acid Dissociable)	1 2 3 4 5 6 7 8 9 10
CA	Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN	Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN	Nitrite - NO_2	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
GN	Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN	Dissolved Solids - TDS	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
GN	Turbidity	1 2 3 4 5 6 7 8 9 10
MN	Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN	Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN	Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN	Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN	Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN	Chromium 6 - Cr+6	1 2 3 4 5 6 7 8 9 10
MN	Conductivity	1 2 3 4 5 6 7 8 9 10
MN	pH	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
GA	Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	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
GA	Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA	Nitrate+Nitrite - NO3+ND2	1 2 3 4 5 6 7 8 9 10
GA	Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA	Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Mike Priebe / MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe / MDEQ	Melissa Smith	5/18/17 1655
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705197	Abandoned Mining Wastes- QMCM Ops	ground WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1:	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-GW 19-10'-15'	5/17/17	1640		
2	12	QMCM-GW 18 12-17'	5-18-17	900		
3	13	QMCM-GW 17 10-15'	5-18-17	945		
4	14	QMCM-GW 20 - 10-15'	5-18-17	1010		
5	15	QMCM-GW 22-10-15'	5-18-17	1055		
6	16	QMCM-GW 23 - 10-15'	5-18-17	1200		
7		QMCM-GW				
8		QMCM-GW				
9		QMCM-GW				
10		QMCM-GW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

METH - Methane, Ethane, Ethene
- Methane, Ethane, Ethene: 1 2 3 4 5 6 7 8 9 10

ON - 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
- Chlordane: 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
- Benzidines: 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
- Acids 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

METALS CHEMISTRY PACKAGES
- OpMemo2 - Total: 1 2 3 4 5 6 7 8 9 10
- OpMemo2 - Dissolved: 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,Tl,V,Zn)
- Michigan10 - Total: 1 2 3 4 5 6 7 8 9 10
- Michigan10 - Dissolved: 1 2 3 4 5 6 7 8 9 10
  (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MAD - DISSOLVED METALS
- Diss - Silver - Ag: 1 2 3 4 5 6 7 8 9 10
- Diss - Aluminum - Al: 1 2 3 4 5 6 7 8 9 10
- Diss - Arsenic - As: 1 2 3 4 5 6 7 8 9 10
- Diss - Boron - B: 1 2 3 4 5 6 7 8 9 10
- Diss - Barium - Ba: 1 2 3 4 5 6 7 8 9 10
- Diss - Beryllium - Be: 1 2 3 4 5 6 7 8 9 10
- Diss - Cadmium - Cd: 1 2 3 4 5 6 7 8 9 10
- Diss - Cobalt - Co: 1 2 3 4 5 6 7 8 9 10
- Diss - Chromium - Cr: 1 2 3 4 5 6 7 8 9 10
- Diss - Copper - Cu: 1 2 3 4 5 6 7 8 9 10
- Diss - Iron - Fe: 1 2 3 4 5 6 7 8 9 10
- Diss - Mercury - Hg: 1 2 3 4 5 6 7 8 9 10
- Diss - Lithium - Li: 1 2 3 4 5 6 7 8 9 10
- Diss - Manganese - Mn: 1 2 3 4 5 6 7 8 9 10
- Diss - Molybdenum - Mo: 1 2 3 4 5 6 7 8 9 10
- Diss - Nickel - Ni: 1 2 3 4 5 6 7 8 9 10
- Diss - Lead - Pb: 1 2 3 4 5 6 7 8 9 10
- Diss - Antimony - Sb: 1 2 3 4 5 6 7 8 9 10
- Diss - Selenium - Se: 1 2 3 4 5 6 7 8 9 10
- Diss - Strontium - Sr: 1 2 3 4 5 6 7 8 9 10
- Diss - Titanium - Ti: 1 2 3 4 5 6 7 8 9 10
- Diss - Thallium - Tl: 1 2 3 4 5 6 7 8 9 10
- Diss - Uranium - U: 1 2 3 4 5 6 7 8 9 10
- Diss - Vanadium - V: 1 2 3 4 5 6 7 8 9 10
- Diss - Zinc - Zn: 1 2 3 4 5 6 7 8 9 10
- Diss - Calcium - Ca: 1 2 3 4 5 6 7 8 9 10
- Diss - Potassium - K: 1 2 3 4 5 6 7 8 9 10
- Diss - Magnesium - Mg: 1 2 3 4 5 6 7 8 9 10
- Diss - Sodium - Na: 1 2 3 4 5 6 7 8 9 10
- Diss - Hardness - Ca, Mg: 1 2 3 4 5 6 7 8 9 10

MD - Metals Dissolved
- Lab Filtration: 1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS
- 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
- Boron - B: 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
- Hardness - Ca, Mg: 1 2 3 4 5 6 7 8 9 10

LHG - Low Level Mercury
- Mercury Low Level - Hg: 1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY
- GB Total Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- GCN Available Cyanide - CN (Amenable / Weak Acid Dissociable): 1 2 3 4 5 6 7 8 9 10
- CA Chlorophyll: 1 2 3 4 5 6 7 8 9 10
- GN Ortho Phosphate - OP: 1 2 3 4 5 6 7 8 9 10
- GN Nitrite - NO_2: 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
- GN Suspended Solids - SS: 1 2 3 4 5 6 7 8 9 10
- GN Dissolved Solids - TDS: 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
- GN Turbidity: 1 2 3 4 5 6 7 8 9 10
- MN Total Alkalinity: 1 2 3 4 5 6 7 8 9 10
- MN Bicarb/Carb Alkalinity (includes Total Alkalinity): 1 2 3 4 5 6 7 8 9 10
- MN Chloride - Cl: 1 2 3 4 5 6 7 8 9 10
- MN Fluoride - F: 1 2 3 4 5 6 7 8 9 10
- MN Sulfate - SO4: 1 2 3 4 5 6 7 8 9 10
- MN Chromium 6 - Cr+6: 1 2 3 4 5 6 7 8 9 10
- MN Conductivity: 1 2 3 4 5 6 7 8 9 10
- MN pH: 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
- GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved): 1 2 3 4 5 6 7 8 9 10
- GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved): 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
- GA Ammonia - NH3: 1 2 3 4 5 6 7 8 9 10
- GA Nitrate+Nitrite - NO3+ND2: 1 2 3 4 5 6 7 8 9 10
- GA Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- GA Total Phosphorus - TP: 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF BINKLEY DEQ	Mike Priebe /MDEQ	5/18/17 1200
Signature:			
Print Name & Org.	Mike Priebe/ MDEQ	Melissa Smith EGLE	5/19/17 1055
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

26 June 2017

Work Order: 1705253

Price: $6,013.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/26/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SB 21 0-6"	1705253-01	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 21 6"-6'	1705253-02	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 30-0-6"	1705253-03	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 30-6"-7'	1705253-04	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 30-6"-7' dup	1705253-05	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 31-9"-15"	1705253-06	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 31-15"-7'	1705253-07	Soil/Sediment	05/18/2017	05/23/2017	
QMCM-SB 38 3'	1705253-08	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 37 3'	1705253-09	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 24 0-6"	1705253-10	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 24 6"-4'	1705253-11	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 24 6"-4' dup	1705253-12	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 25 0-6"	1705253-13	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 25 6"-4'	1705253-14	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 26 0-6"	1705253-15	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 26 6"-4'	1705253-16	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 27-0-6"	1705253-17	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 27-6"-4'	1705253-18	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 28-0-6"	1705253-19	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 28-6"-4'	1705253-20	Soil/Sediment	05/19/2017	05/23/2017	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A11	Result is estimated due to high initial verification standard criteria failure.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
T	Reported value is less than the reporting limit (RL). Result is estimated.
Y26	Sample was not covered with methanol. Results are estimated.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
Y11	Unidentified peaks present in sample.
Y15	Methanol leaked out of the vial in transit to the lab. Results and reporting limits are estimated.
Y16	No tare weight on vial. Results and reporting limits are estimated.
Y20	Reporting Limits (RL) raised due to matrix.
Y21	Reporting Limits (RL) raised due to matrix interference.
N	Result is estimated due to Non-homogeneous sample.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 21 0-6"

Lab ID: 1705253-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**320**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**730**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**170**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	**2-Methylnaphthalene**	**1700**	280	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	**Benzene**	**140**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	**Cyclohexane**	**840**	280	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	

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TEL: (517) 335-9800
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Client ID: QMCM-SB 21 0-6"

Lab ID: 1705253-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	**Ethylbenzene**	**190**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	**Hexane**	**310**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	**Isopropylbenzene**	**110**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	**m & p - Xylene**	**1300**	110	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	**Naphthalene**	**1500**	280	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	**n-Butylbenzene**	**91**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	**n-Propylbenzene**	**120**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	**o-Xylene**	**970**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	**Toluene**	**940**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*97.4 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*98.7 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*101 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

Lab Work Order # 1705253

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Client ID: QMCM-SB 21 0-6"

Lab ID: 1705253-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**970**	540	ug/kg dry	1	06/08/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
91-20-3	**Naphthalene**	**730**	210	ug/kg dry	1	06/08/17	B7E2501	8270	
85-01-8	**Phenanthrene**	**420**	210	ug/kg dry	1	06/08/17	B7E2501	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	06/08/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*87.1 %*	*32.9-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*68.0 %*	*31.8-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*94.4 %*	*38.5-115*		*06/08/17*	B7E2501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.1**	0.1	%	1	05/30/17	B7E3017	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**8.9**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**24**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**2500**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**5.9**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**63**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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Client ID: QMCM-SB 21 6''-6'

Lab ID: 1705253-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11, Y26**
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**130**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**360**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**75**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	**2-Methylnaphthalene**	**840**	280	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	**Benzene**	**84**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	**Cyclohexane**	**460**	280	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	

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Lab ID: 1705253-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11, Y26**
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	**Ethylbenzene**	**210**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	**Hexane**	**160**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	**Isopropylbenzene**	**130**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	**m & p - Xylene**	**770**	110	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	**Naphthalene**	**750**	280	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	**n-Propylbenzene**	**120**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	**o-Xylene**	**560**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	**Toluene**	**690**	56	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*110 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*113 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**530**	540	ug/kg dry	1	06/08/17	B7E2501	8270	T
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	06/08/17	B7E2501	8270	
91-20-3	**Naphthalene**	**370**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
85-01-8	**Phenanthrene**	**290**	220	ug/kg dry	1	06/08/17	B7E2501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*83.2 %*	*32.9-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*64.5 %*	*31.8-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*95.1 %*	*38.5-115*		*06/08/17*	B7E2501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.9**	0.1	%	1	05/30/17	B7E3018	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.3**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**7.8**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**4.5**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**110**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**2.0**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**6.8**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SB 30-0-6"

Lab ID: 1705253-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15**
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	

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Client ID: QMCM-SB 30-0-6"

Lab ID: 1705253-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15**
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*119 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*118 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*122 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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Client ID: QMCM-SB 30-0-6"

Lab ID: 1705253-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	06/08/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	06/08/17	B7E2501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	06/08/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*83.0 %*	*32.9-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*67.2 %*	*31.8-115*		*06/08/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*90.6 %*	*38.5-115*		*06/08/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*129 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*112 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Lab ID: 1705253-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.9**	0.1	%	1	05/30/17	B7E3018	2540 B	N
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	06/01/17	B7E3016	OIA-1677	
Inorganics-Metals									
7440-38-2	Arsenic	ND	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**210**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**6.5**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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Client ID: QMCM-SB 30-6''-7'

Lab ID: 1705253-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	

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FAX: (517) 335-9600

Client ID: QMCM-SB 30-6''-7'

Lab ID: 1705253-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*111 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*112 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*109 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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Client ID: QMCM-SB 30-6''-7'

Lab ID: 1705253-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	**Acenaphthylene**	**260**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	**Anthracene**	**690**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	**Benz[a]anthracene**	**1700**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	**Benzo[a]pyrene**	**1900**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	**Benzo[b]fluoranthene**	**2300**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1500**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
207-08-9	**Benzo[k]fluoranthene**	**700**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
218-01-9	**Chrysene**	**2000**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**4100**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	**Fluorene**	**510**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1200**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	**Phenanthrene**	**4900**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	**Pyrene**	**5100**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*91.0 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*67.3 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*86.1 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	06/04/17	B7E3022	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	06/04/17	B7E3022	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*111 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Lab ID: 1705253-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.1**	0.1	%	1	05/30/17	B7E3018	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	06/01/17	B7E3016	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.9**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**30**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**9.2**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**820**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**120**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**1.1**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**35**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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Lab ID: 1705253-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	

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Lab ID: 1705253-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*98.8 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

Lab Work Order # 1705253

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	**Benz[a]anthracene**	**630**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	**Benzo[a]pyrene**	**1300**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	**Benzo[b]fluoranthene**	**1600**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1100**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
207-08-9	**Benzo[k]fluoranthene**	**440**	450	ug/kg dry	1	06/09/17	B7E2501	8270	T
218-01-9	**Chrysene**	**810**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**1200**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1000**	450	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	**Phenanthrene**	**570**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	**Pyrene**	**1600**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*85.9 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*63.8 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*91.1 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*102 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*107 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB 30-6''-7' dup

Lab ID: 1705253-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.0**	0.1	%	1	05/30/17	B7E3018	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	06/01/17	B7E3016	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.1**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**33**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**9.9**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**940**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**110**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**1.5**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**43**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SB 31-9"-15"

Lab ID: 1705253-06

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	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	

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Client ID: QMCM-SB 31-9"-15"

Lab ID: 1705253-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*96.0 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*95.1 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*95.7 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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Client ID: QMCM-SB 31-9"-15"

Lab ID: 1705253-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**300**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	**Pyrene**	**300**	220	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*90.7 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*68.1 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*94.3 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*69.9 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*105 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Client ID: QMCM-SB 31-9"-15"

Lab ID: 1705253-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.2**	0.1	%	1	05/30/17	B7E3018	2540 B	
57-12-5	**Available Cyanide**	**0.15**	0.11	mg/kg dry	1	06/01/17	B7E3016	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.9**	0.5	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-39-3	**Barium**	**22**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-50-8	**Copper**	**530**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-92-1	**Lead**	**28**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	06/13/17	B7F0102	6020/200.8	

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Client ID: QMCM-SB 31-15''-7'

Lab ID: 1705253-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15, Y16**
630-20-6	1,1,1,2-Tetrachloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	

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Client ID: QMCM-SB 31-15''-7'

Lab ID: 1705253-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y15, Y16**
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	65	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*106 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*111 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*110 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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Client ID: QMCM-SB 31-15''-7'

Lab ID: 1705253-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*86.5 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*67.1 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*89.7 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*81.5 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*119 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	

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Lab ID: 1705253-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.5**	0.1	%	1	05/30/17	B7E3018	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	06/01/17	B7E3016	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.8**	0.5	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-47-3	**Chromium**	**4.5**	2.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-50-8	**Copper**	**110**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-92-1	**Lead**	**31**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-66-6	**Zinc**	**24**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	

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Client ID: QMCM-SB 38 3'

Lab ID: 1705253-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*105 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*110 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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FAX: (517) 335-9600

Client ID: QMCM-SB 38 3'

Lab ID: 1705253-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.7**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 37 3'

Lab ID: 1705253-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	

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Client ID: QMCM-SB 37 3'

Lab ID: 1705253-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*116 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*114 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

Lab Work Order # 1705253

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Client ID: QMCM-SB 37 3'

Lab ID: 1705253-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.8**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 24 0-6"

Lab ID: 1705253-10

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	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*80.2 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*107 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.6**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 24 6''-4'

Lab ID: 1705253-11

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	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*89.2 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*110 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.1**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 24 6''-4' dup

Lab ID: 1705253-12

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	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*99.0 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*116 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.0**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 25 0-6"

Lab ID: 1705253-13

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	06/04/17	B7E3022	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3022	8081/8082	
Surrogate: Decachlorobiphenyl			*87.0 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*95.8 %*	*30-150*		*06/04/17*	B7E3022	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.1**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 25 6''-4'

Lab ID: 1705253-14

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	06/04/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/04/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*106 %*	*30-150*		*06/04/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*102 %*	*30-150*		*06/04/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

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Client ID: QMCM-SB 26 0-6"

Lab ID: 1705253-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*114 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*111 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**81.2**	0.1	%	1	05/30/17	B7E3018	2540 B	N

Lab Work Order # 1705253

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 26 6''-4'

Lab ID: 1705253-16

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*134 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*121 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.0**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 27-0-6"

Lab ID: 1705253-17

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*118 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*121 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.0**	0.1	%	1	05/30/17	B7E3018	2540 B	N

Lab Work Order # 1705253

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 27-6''-4'

Lab ID: 1705253-18

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*120 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*116 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.2**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705253

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 28-0-6"

Lab ID: 1705253-19

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*129 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*125 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.8**	0.1	%	1	05/30/17	B7E3018	2540 B	N

Lab Work Order # 1705253

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 28-6''-4'

Lab ID: 1705253-20

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*123 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*121 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.9**	0.1	%	1	05/30/17	B7E3018	2540 B	N

Lab Work Order # 1705253

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705253	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: [redacted] JP
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SB 21 0-6"	5-18-17	1400		
2	02	QMCM-SB 21 6"-6'	5-18-17	1400		
3	03	QMCM-SB 30-0-6"		1605		
4	04	QMCM-SB 30-6"-7'		1610		
5	05	QMCM-SB 30-6"-7' dup		1610		
6	06	QMCM-SB 31-9"-15"		1650		
7	07	QMCM-SB 31-15"-7'		1652		
8	08	QMCM-SB 38 3'	5-19-17	840		
9	09	QMCM-SB 37 3'	5-19-17	920		
10	10	QMCM-SB 24 0-6"	5-19-17	1045		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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

GENERAL CHEMISTRY

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
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Jeff Pinkerton DEQ	Melissa Smith	
Signature:			5/23/17 1540
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

DEQ

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705253	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY:	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index:	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA:	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project:	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase:	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SB 24-6"-4'	5/19/17	1050		
2	12	QMCM-SB 24-6"-4' dup		1050		
3	13	QMCM-SB 25-0-6"		1120		
4	14	QMCM-SB 25-6"-4'		1120		
5	15	QMCM-SB 26-0-6"		1155		
6	16	QMCM-SB 26-6"-4'		1155		
7	17	QMCM-SB 27-0-6"		1240		
8	18	QMCM-SB 27-6"-4'		1240		
9	19	QMCM-SB 28-0-6"		1340		
10	20	QMCM-SB 28-6"-4'		1345		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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 (circled)
- 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
- ORO / ORO 1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

- 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,Tl,V,Zn)
- Michigan10 - Total 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

- 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

GENERAL CHEMISTRY

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
- Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10
- Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Jeff Pinchbeck DEQ	Melissa Smith MSC	5/23/17 1540
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEQ
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

26 June 2017

Work Order: 1705254

Price: $2,870.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/26/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SB 29-0-6"	1705254-01	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 29-6"-4'	1705254-02	Soil/Sediment	05/19/2017	05/23/2017	
QMCM-SB 36-6"-12"	1705254-03	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 36-12"-2'	1705254-04	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 35-12"-18"	1705254-05	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 35-18"-5'	1705254-06	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 34-12"-18"	1705254-07	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 34-18"-24"	1705254-08	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 32-9"-15"	1705254-09	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 32-15"-5'	1705254-10	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 33-6"-12"	1705254-11	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 33-1'-4'	1705254-12	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 33-1'-4' dup	1705254-13	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 09-0-6"	1705254-14	Soil/Sediment	05/20/2017	05/23/2017	
QMCM-SB 09-6"-4'	1705254-15	Soil/Sediment	05/20/2017	05/23/2017	

Notes and Definitions

Y20	Reporting Limits (RL) raised due to matrix.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
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 quality control.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result and reporting limit 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 compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

STATE OF MICHIGAN
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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCM-SB 29-0-6"

Lab ID: 1705254-01

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*118 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*118 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.4**	0.1	%	1	05/30/17	B7E3018	2540 B	

Lab Work Order # 1705254

STATE OF MICHIGAN
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P.O. Box 30270
Lansing, MI 48909
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Client ID: QMCM-SB 29-6''-4'

Lab ID: 1705254-02

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	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*121 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*119 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.4**	0.1	%	1	05/30/17	B7E3019	2540 B	

Lab Work Order # 1705254

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TEL: (517) 335-9800
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Client ID: QMCM-SB 36-6"-12"

Lab ID: 1705254-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
71-55-6	1,1,1-Trichloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
79-00-5	1,1,2-Trichloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-34-3	1,1-Dichloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-35-4	1,1-Dichloroethylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
96-18-4	1,2,3-Trichloropropane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
106-93-4	1,2-Dibromoethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
95-50-1	1,2-Dichlorobenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
107-06-2	1,2-Dichloroethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
78-87-5	1,2-Dichloropropane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
541-73-1	1,3-Dichlorobenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
106-46-7	1,4-Dichlorobenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
540-84-1	2,2,4-Trimethylpentane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	A05
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/25/17	B7E2511	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
71-43-2	Benzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
74-97-5	Bromochloromethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-27-4	Bromodichloromethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-25-2	Bromoform	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
75-15-0	Carbon disulfide	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
56-23-5	Carbon tetrachloride	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
108-90-7	Chlorobenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
67-66-3	Chloroform	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
124-48-1	Dibromochloromethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
74-95-3	Dibromomethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	

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Client ID: QMCM-SB 36-6"-12"

Lab ID: 1705254-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/25/17	B7E2511	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
100-41-4	Ethylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
110-54-3	Hexane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
98-82-8	Isopropylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/25/17	B7E2511	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/25/17	B7E2511	8260	
1634-04-4	Methyltertiarybutylether	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	X
104-51-8	n-Butylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
103-65-1	n-Propylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
95-47-6	o-Xylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
135-98-8	sec-Butylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
100-42-5	Styrene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
98-06-6	tert-Butylbenzene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/25/17	B7E2511	8260	
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
127-18-4	Tetrachloroethylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/25/17	B7E2511	8260	
108-88-3	Toluene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
79-01-6	Trichloroethylene	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-69-4	Trichlorofluoromethane	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
75-01-4	Vinyl chloride	ND	70	ug/kg dry	50	05/25/17	B7E2511	8260	
Surrogate: Bromofluorobenzene			*114 %*	*40.3-194*		*05/25/17*	B7E2511	*8260*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*05/25/17*	B7E2511	*8260*	
Surrogate: Toluene-d8			*115 %*	*55.4-196*		*05/25/17*	B7E2511	*8260*	

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Client ID: QMCM-SB 36-6"-12"

Lab ID: 1705254-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.3**	0.1	%	1	05/30/17	B7E3019	2540 B	

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TEL: (517) 335-9800
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Client ID: QMCM-SB 36-12''-2'

Lab ID: 1705254-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
71-55-6	1,1,1-Trichloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
79-00-5	1,1,2-Trichloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-34-3	1,1-Dichloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-35-4	1,1-Dichloroethylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
96-18-4	1,2,3-Trichloropropane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
106-93-4	1,2-Dibromoethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
95-50-1	1,2-Dichlorobenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
107-06-2	1,2-Dichloroethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
78-87-5	1,2-Dichloropropane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
541-73-1	1,3-Dichlorobenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
106-46-7	1,4-Dichlorobenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
540-84-1	2,2,4-Trimethylpentane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
78-93-3	2-Butanone (MEK)	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/30/17	B7E3010	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
107-13-1	Acrylonitrile	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
71-43-2	Benzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
74-97-5	Bromochloromethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-27-4	Bromodichloromethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-25-2	Bromoform	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/30/17	B7E3010	8260	
75-15-0	Carbon disulfide	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
56-23-5	Carbon tetrachloride	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
108-90-7	Chlorobenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-00-3	Chloroethane	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
67-66-3	Chloroform	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
74-87-3	Chloromethane	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
110-82-7	Cyclohexane	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
124-48-1	Dibromochloromethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
74-95-3	Dibromomethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	

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Client ID: QMCM-SB 36-12''-2'

Lab ID: 1705254-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/30/17	B7E3010	8260	
108-20-3	Diisopropyl Ether	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
100-41-4	Ethylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
637-92-3	Ethyltertiarybutylether	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
67-72-1	Hexachloroethane	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
110-54-3	Hexane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
98-82-8	Isopropylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/30/17	B7E3010	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/30/17	B7E3010	8260	
1634-04-4	Methyltertiarybutylether	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
91-20-3	Naphthalene	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	X
104-51-8	n-Butylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
103-65-1	n-Propylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
95-47-6	o-Xylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
135-98-8	sec-Butylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
100-42-5	Styrene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
98-06-6	tert-Butylbenzene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-65-0	tertiary Butyl Alcohol	ND	3600	ug/kg dry	50	05/30/17	B7E3010	8260	
994-05-8	tertiaryAmylmethylether	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
127-18-4	Tetrachloroethylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
109-99-9	Tetrahydrofuran	ND	360	ug/kg dry	50	05/30/17	B7E3010	8260	
108-88-3	Toluene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
79-01-6	Trichloroethylene	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-69-4	Trichlorofluoromethane	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
75-01-4	Vinyl chloride	ND	71	ug/kg dry	50	05/30/17	B7E3010	8260	
Surrogate: Bromofluorobenzene			*132 %*	*40.3-194*		*05/30/17*	B7E3010	*8260*	
Surrogate: Dibromofluoromethane			*145 %*	*52.1-217*		*05/30/17*	B7E3010	*8260*	
Surrogate: Toluene-d8			*142 %*	*55.4-196*		*05/30/17*	B7E3010	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 36-12''-2'

Lab ID: 1705254-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.9**	0.1	%	1	05/30/17	B7E3019	2540 B	N

Lab Work Order # 1705254

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TEL: (517) 335-9800
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Client ID: QMCM-SB 35-12"-18"

Lab ID: 1705254-05

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	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 35-12"-18"

Lab ID: 1705254-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*114 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*126 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*123 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 35-12"-18"

Lab ID: 1705254-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.7**	0.1	%	1	05/30/17	B7E3019	2540 B	

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

Client ID: QMCM-SB 35-18''-5'

Lab ID: 1705254-06

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	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	

STATE OF MICHIGAN
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-SB 35-18''-5'

Lab ID: 1705254-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*96.2 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

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Client ID: QMCM-SB 35-18''-5'

Lab ID: 1705254-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.5**	0.1	%	1	05/30/17	B7E3019	2540 B	

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Client ID: QMCM-SB 34-12"-18"

Lab ID: 1705254-07

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	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 34-12"-18"

Lab ID: 1705254-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*88.8 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*96.9 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*94.5 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 34-12"-18"

Lab ID: 1705254-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.1**	0.1	%	1	05/30/17	B7E3019	2540 B	

STATE OF MICHIGAN
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DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 34-18"-24"

Lab ID: 1705254-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 34-18"-24"

Lab ID: 1705254-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*96.6 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 34-18"-24"

Lab ID: 1705254-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.5**	0.1	%	1	05/30/17	B7E3019	2540 B	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 32-9''-15''

Lab ID: 1705254-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 32-9"-15"

Lab ID: 1705254-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*91.4 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*100 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

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

Client ID: QMCM-SB 32-9''-15''

Lab ID: 1705254-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.9**	0.1	%	1	05/30/17	B7E3019	2540 B	

Lab Work Order # 1705254

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TEL: (517) 335-9800
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Client ID: QMCM-SB 32-15''-5'

Lab ID: 1705254-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 32-15''-5'

Lab ID: 1705254-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	64	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*98.2 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*110 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

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

Client ID: QMCM-SB 32-15''-5'

Lab ID: 1705254-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.1**	0.1	%	1	05/30/17	B7E3019	2540 B	

Lab Work Order # 1705254

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TEL: (517) 335-9800
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Client ID: QMCM-SB 33-6"-12"

Lab ID: 1705254-11

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	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 33-6"-12"

Lab ID: 1705254-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*111 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*123 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*118 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 33-6''-12''

Lab ID: 1705254-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.9**	0.1	%	1	05/30/17	B7E3019	2540 B	

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Client ID: QMCM-SB 33-1'-4'

Lab ID: 1705254-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	

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TEL: (517) 335-9800
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Client ID: QMCM-SB 33-1'-4'

Lab ID: 1705254-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	70	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*96.2 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*103 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

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

Client ID: QMCM-SB 33-1'-4'

Lab ID: 1705254-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.1**	0.1	%	1	05/30/17	B7E3019	2540 B	

Lab Work Order # 1705254

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

Client ID: QMCM-SB 33-1'-4' dup

Lab ID: 1705254-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 33-1'-4' dup

Lab ID: 1705254-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*95.6 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 33-1'-4' dup

Lab ID: 1705254-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.4**	0.1	%	1	05/30/17	B7E3019	2540 B	

Lab Work Order # 1705254

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Client ID: QMCM-SB 09-0-6"

Lab ID: 1705254-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 09-0-6"

Lab ID: 1705254-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*114 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*129 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*122 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

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Client ID: QMCM-SB 09-0-6"

Lab ID: 1705254-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	A05
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**270**	230	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*73.0 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*64.7 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*76.0 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*135 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*131 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	

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Client ID: QMCM-SB 09-0-6"

Lab ID: 1705254-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**85.3**	0.1	%	1	05/30/17	B7E3019	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-39-3	**Barium**	**38**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-47-3	**Chromium**	**10**	2.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-50-8	**Copper**	**640**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-92-1	**Lead**	**14**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-66-6	**Zinc**	**47**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	

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Client ID: QMCM-SB 09-6''-4'

Lab ID: 1705254-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
71-55-6	1,1,1-Trichloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
79-00-5	1,1,2-Trichloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-34-3	1,1-Dichloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-35-4	1,1-Dichloroethylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
96-18-4	1,2,3-Trichloropropane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
106-93-4	1,2-Dibromoethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
95-50-1	1,2-Dichlorobenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
107-06-2	1,2-Dichloroethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
78-87-5	1,2-Dichloropropane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
541-73-1	1,3-Dichlorobenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
106-46-7	1,4-Dichlorobenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
540-84-1	2,2,4-Trimethylpentane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	05/26/17	B7E2615	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
71-43-2	Benzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
74-97-5	Bromochloromethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-27-4	Bromodichloromethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-25-2	Bromoform	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
75-15-0	Carbon disulfide	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
56-23-5	Carbon tetrachloride	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
108-90-7	Chlorobenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-66-3	Chloroform	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
124-48-1	Dibromochloromethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
74-95-3	Dibromomethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	

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Client ID: QMCM-SB 09-6''-4'

Lab ID: 1705254-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	05/26/17	B7E2615	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
100-41-4	Ethylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
110-54-3	Hexane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
98-82-8	Isopropylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	05/26/17	B7E2615	8260	
1634-04-4	Methyltertiarybutylether	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	X
104-51-8	n-Butylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
103-65-1	n-Propylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
95-47-6	o-Xylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
135-98-8	sec-Butylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
100-42-5	Styrene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
98-06-6	tert-Butylbenzene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	05/26/17	B7E2615	8260	A05
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	
127-18-4	Tetrachloroethylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	05/26/17	B7E2615	8260	A05
108-88-3	Toluene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
79-01-6	Trichloroethylene	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-69-4	Trichlorofluoromethane	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
75-01-4	Vinyl chloride	ND	71	ug/kg dry	50	05/26/17	B7E2615	8260	
Surrogate: Bromofluorobenzene			*95.7 %*	*40.3-194*		*05/26/17*	B7E2615	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*05/26/17*	B7E2615	*8260*	
Surrogate: Toluene-d8			*101 %*	*55.4-196*		*05/26/17*	B7E2615	*8260*	

Lab Work Order # 1705254

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 09-6''-4'

Lab ID: 1705254-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	06/09/17	B7E2501	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	A05
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
206-44-0	**Fluoranthene**	**290**	230	ug/kg dry	1	06/09/17	B7E2501	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	06/09/17	B7E2501	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	06/09/17	B7E2501	8270	
129-00-0	**Pyrene**	**230**	230	ug/kg dry	1	06/09/17	B7E2501	8270	
Surrogate: 2-Fluorobiphenyl			*70.4 %*	*32.9-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: Nitrobenzene-d5			*62.2 %*	*31.8-115*		*06/09/17*	B7E2501	*8270*	
Surrogate: p-Terphenyl-d14			*87.7 %*	*38.5-115*		*06/09/17*	B7E2501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	06/05/17	B7E3103	8081/8082	
Surrogate: Decachlorobiphenyl			*129 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*126 %*	*30-150*		*06/05/17*	B7E3103	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SB 09-6''-4'

Lab ID: 1705254-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.4**	0.1	%	1	05/30/17	B7E3019	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.5**	0.5	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-39-3	**Barium**	**33**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-47-3	**Chromium**	**7.9**	2.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-50-8	**Copper**	**270**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-92-1	**Lead**	**8.3**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	06/14/17	B7F1325	7471/245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	
7440-66-6	**Zinc**	**21**	1.0	mg/kg dry	10	06/15/17	B7F0503	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
17 G525 4	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SB 29-0-6"	5/19/17	1355		
2	02	QMCM-SB 29-6"-4'	5/19/17	1355		
3	03	QMCM-SB 36-6"-12"	5/20/17	0935		
4	04	QMCM-SB 36-12"-2'	5/20/17	0940		
5	05	QMCM-SB 35-12"-18"		1010		
6	06	QMCM-SB 35-18"-5'		1015		
7	07	QMCM-SB 34-12"-18"		1110		
8	08	QMCM-SB 34-19"-24"		1110		
9	09	QMCM-SB 32-9"-15"		1150		
10	10	QMCM-SB 32-15"-5'		1150		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

METALS CHEMISTRY PACKAGES

- 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,Tl,V,Zn)
- Michigan10 - Total: 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

- 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

GENERAL CHEMISTRY

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
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- Total Phosphorus - TP: 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
	Print Name & Org.: JEFF PINCUMBE DEQ	Melissa Smith	
	Signature:	MSC	5/20/17 1541
	Print Name & Org.:		
	Signature:		
	Print Name & Org.:		
	Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1705254	Abandoned Mining Wastes- QMCM Ops	SOIL

Site Code/Project Number: 31000098	AY:	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index:	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA:	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project:	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase:	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-SB 33 - 6"-12"	5/20/17	1227		
2	12	QMCM-SB 33- 1'-4'	5/20/17	1227		
3	13	QMCM-SB 33-1'-4' dup	"	1227		
4	14	QMCM-SB 09 - 0-6"	"	1325		
5	15	QMCM-SB09 - 6"-4'	"	1330		
6		QMCM-SB				
7		QMCM-SB				
8		QMCM-SB				
9		QMCM-SB				
10		QMCM-SB				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- Volatiles - Full List: 1 2 3 4 5 6 7 8 9 10 (1,2,3,4,5)
- 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

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- 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

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- DRO / ORO: 1 2 3 4 5 6 7 8 9 10

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- 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,Tl,V,Zn)
- Michigan10 - Total: 1 2 3 4 5 6 7 8 9 10 (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MS - TOTAL METALS

- 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

GENERAL CHEMISTRY

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- Total Phosphorus - TP: 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Melissa Smith	
Signature:		LSC	5/23/17 1541
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

26 June 2017

Work Order: 1705257

Price: $4,250.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
06/26/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-GW 21 10-15'	1705257-01	Water	05/18/2017	05/23/2017	
QMCM-GW 30-12'-17'	1705257-02	Water	05/18/2017	05/23/2017	
QMCM-GW 30-12'-17' dup	1705257-03	Water	05/18/2017	05/23/2017	
QMCM-GW 31-12'-17'	1705257-04	Water	05/18/2017	05/23/2017	
QMCM-GW 38 4-9'	1705257-05	Water	05/19/2017	05/23/2017	
QMCM-GW 38 14'-19'	1705257-06	Water	05/19/2017	05/23/2017	
QMCM-GW 37 4-9'	1705257-07	Water	05/19/2017	05/23/2017	
QMCM-GW 37 14'-19'	1705257-08	Water	05/19/2017	05/23/2017	
QMCM-GW 37 14'-19' DUP	1705257-09	Water	05/19/2017	05/23/2017	
QMCM-GW 24 10-15'	1705257-10	Water	05/19/2017	05/23/2017	
QMCM-GW 25 10-15'	1705257-11	Water	05/19/2017	05/23/2017	
QMCM-GW 26 8-13	1705257-12	Water	05/19/2017	05/23/2017	
QMCM-GW 27 8-13	1705257-13	Water	05/19/2017	05/23/2017	
QMCM-GW 28 8-13	1705257-14	Water	05/19/2017	05/23/2017	
QMCM-GW 29 8-13	1705257-15	Water	05/19/2017	05/23/2017	
QMCM-GW 36 8-13	1705257-16	Water	05/20/2017	05/23/2017	
QMCM-GW 35-12'-17'	1705257-17	Water	05/20/2017	05/23/2017	
QMCM-GW 34-8-13'	1705257-18	Water	05/20/2017	05/23/2017	
QMCM-GW 32-10'-15'	1705257-19	Water	05/20/2017	05/23/2017	
QMCM-GW 33-10'-15'	1705257-20	Water	05/20/2017	05/23/2017	
QMCM-GW 09 10-15'	1705257-21	Water	05/20/2017	05/23/2017	

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Notes and Definitions

Y17	Probable petroleum product(s) present.
Y11	Unidentified peaks present in sample.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
T	Reported value is less than the reporting limit (RL). Result is estimated.
KR	Reporting limit(s) raised due to low sample volume submitted.
A11	Result is estimated due to high initial verification standard criteria failure.
A08	Result(s) and reporting limits(s) are estimated due to low 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 and reporting limit are estimated due to low continuing calibration standard criteria failure.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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P.O. Box 30270
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Client ID: QMCM-GW 21 10-15'

Lab ID: 1705257-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Client ID: QMCM-GW 21 10-15'

Lab ID: 1705257-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*99.0 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.0 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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Client ID: QMCM-GW 21 10-15'

Lab ID: 1705257-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*50.0 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*40.1 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*73.3 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-39-3	**Barium**	**110**	5.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-47-3	**Chromium**	**16**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-50-8	**Copper**	**40**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-92-1	**Lead**	**1.9**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-66-6	**Zinc**	**36**	5.0	ug/L	1	06/16/17	B7E3027	6020/200.8	

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Client ID: QMCM-GW 30-12'-17'

Lab ID: 1705257-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**13**	1.0	ug/L	1	06/01/17	B7F0113	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**21**	1.0	ug/L	1	06/01/17	B7F0113	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**0.98**	1.0	ug/L	1	06/01/17	B7F0113	8260	T
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	A05
91-57-6	**2-Methylnaphthalene**	**10**	5.0	ug/L	1	06/01/17	B7F0113	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/01/17	B7F0113	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	

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Client ID: QMCM-GW 30-12'-17'

Lab ID: 1705257-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
98-82-8	**Isopropylbenzene**	**1.1**	1.0	ug/L	1	06/01/17	B7F0113	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/01/17	B7F0113	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	X
104-51-8	**n-Butylbenzene**	**6.1**	1.0	ug/L	1	06/01/17	B7F0113	8260	
103-65-1	**n-Propylbenzene**	**4.1**	1.0	ug/L	1	06/01/17	B7F0113	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
135-98-8	**sec-Butylbenzene**	**3.1**	1.0	ug/L	1	06/01/17	B7F0113	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/01/17	B7F0113	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
Surrogate: Bromofluorobenzene			*96.8 %*	*85-115*		*06/01/17*	B7F0113	*8260*	
Surrogate: Dibromofluoromethane			*99.2 %*	*82.7-115*		*06/01/17*	B7F0113	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*06/01/17*	B7F0113	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 30-12'-17'

Lab ID: 1705257-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**5.8**	5.0	ug/L	1	05/25/17	B7E2301	8270	
83-32-9	**Acenaphthene**	**6.1**	1.0	ug/L	1	05/25/17	B7E2301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
86-73-7	**Fluorene**	**6.3**	1.0	ug/L	1	05/25/17	B7E2301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	05/25/17	B7E2301	8270	
91-20-3	**Naphthalene**	**3.2**	1.0	ug/L	1	05/25/17	B7E2301	8270	
85-01-8	**Phenanthrene**	**8.5**	1.0	ug/L	1	05/25/17	B7E2301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	05/25/17	B7E2301	8270	
Surrogate: 2-Fluorobiphenyl			*74.2 %*	*24.1-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: Nitrobenzene-d5			*56.0 %*	*17.8-115*		*05/25/17*	B7E2301	*8270*	
Surrogate: p-Terphenyl-d14			*71.2 %*	*41.8-115*		*05/25/17*	B7E2301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*62.3 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.4 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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TEL: (517) 335-9800
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Client ID: QMCM-GW 30-12'-17'

Lab ID: 1705257-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-39-3	**Barium**	**150**	5.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-47-3	**Chromium**	**10**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-50-8	**Copper**	**110**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-92-1	**Lead**	**33**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-66-6	**Zinc**	**130**	5.0	ug/L	1	06/16/17	B7E3027	6020/200.8	

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Client ID: QMCM-GW 30-12'-17' dup

Lab ID: 1705257-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**13**	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**20**	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	**2-Methylnaphthalene**	**9.7**	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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

Client ID: QMCM-GW 30-12'-17' dup

Lab ID: 1705257-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	**Isopropylbenzene**	**1.1**	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	**n-Butylbenzene**	**6.0**	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	**n-Propylbenzene**	**3.9**	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	**sec-Butylbenzene**	**3.0**	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.0 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

Lab Work Order # 1705257

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Client ID: QMCM-GW 30-12'-17' dup

Lab ID: 1705257-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**5.0**	5.0	ug/L	1	06/06/17	B7E2411	8270	
83-32-9	**Acenaphthene**	**5.7**	1.0	ug/L	1	06/06/17	B7E2411	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
86-73-7	**Fluorene**	**6.2**	1.0	ug/L	1	06/06/17	B7E2411	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
91-20-3	**Naphthalene**	**2.8**	1.0	ug/L	1	06/06/17	B7E2411	8270	
85-01-8	**Phenanthrene**	**8.6**	1.0	ug/L	1	06/06/17	B7E2411	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
Surrogate: 2-Fluorobiphenyl			*66.0 %*	*24.1-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: Nitrobenzene-d5			*54.4 %*	*17.8-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: p-Terphenyl-d14			*82.4 %*	*41.8-115*		*06/06/17*	B7E2411	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*62.5 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*59.8 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Lab ID: 1705257-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-39-3	**Barium**	**150**	5.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-47-3	**Chromium**	**7.1**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-50-8	**Copper**	**74**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-92-1	**Lead**	**22**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-66-6	**Zinc**	**97**	5.0	ug/L	1	06/16/17	B7E3027	6020/200.8	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 31-12'-17'

Lab ID: 1705257-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**2.4**	1.0	ug/L	1	06/01/17	B7F0113	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**7.8**	1.0	ug/L	1	06/01/17	B7F0113	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**1.4**	1.0	ug/L	1	06/01/17	B7F0113	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	A05
91-57-6	**2-Methylnaphthalene**	**47**	5.0	ug/L	1	06/01/17	B7F0113	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/01/17	B7F0113	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	

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Client ID: QMCM-GW 31-12'-17'

Lab ID: 1705257-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/01/17	B7F0113	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
91-20-3	**Naphthalene**	**21**	5.0	ug/L	1	06/01/17	B7F0113	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
103-65-1	**n-Propylbenzene**	**1.4**	1.0	ug/L	1	06/01/17	B7F0113	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/01/17	B7F0113	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/01/17	B7F0113	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/01/17	B7F0113	8260	
Surrogate: Bromofluorobenzene			*98.6 %*	*85-115*		*06/01/17*	B7F0113	*8260*	
Surrogate: Dibromofluoromethane			*98.9 %*	*82.7-115*		*06/01/17*	B7F0113	*8260*	
Surrogate: Toluene-d8			*98.9 %*	*85-115*		*06/01/17*	B7F0113	*8260*	

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Client ID: QMCM-GW 31-12'-17'

Lab ID: 1705257-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**31**	5.0	ug/L	1	06/06/17	B7E2411	8270	
83-32-9	**Acenaphthene**	**1.4**	1.0	ug/L	1	06/06/17	B7E2411	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
86-73-7	**Fluorene**	**2.1**	1.0	ug/L	1	06/06/17	B7E2411	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
91-20-3	**Naphthalene**	**9.6**	1.0	ug/L	1	06/06/17	B7E2411	8270	
85-01-8	**Phenanthrene**	**5.5**	1.0	ug/L	1	06/06/17	B7E2411	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
Surrogate: 2-Fluorobiphenyl			*53.3 %*	*24.1-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: Nitrobenzene-d5			*44.1 %*	*17.8-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: p-Terphenyl-d14			*61.7 %*	*41.8-115*		*06/06/17*	B7E2411	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*39.0 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*51.7 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 31-12'-17'

Lab ID: 1705257-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.9**	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-39-3	**Barium**	**150**	5.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-47-3	**Chromium**	**25**	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-50-8	**Copper**	**76**	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7439-92-1	**Lead**	**3.6**	1.0	ug/L	1	06/15/17	B7E3027	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/16/17	B7E3027	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/15/17	B7E3027	6020/200.8	
7440-66-6	**Zinc**	**20**	5.0	ug/L	1	06/16/17	B7E3027	6020/200.8	

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Client ID: QMCM-GW 38 4-9'

Lab ID: 1705257-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Lab ID: 1705257-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*99.7 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.7 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

Lab Work Order # 1705257

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 38 14'-19'

Lab ID: 1705257-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCM-GW 38 14'-19'

Lab ID: 1705257-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.9 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 37 4-9'

Lab ID: 1705257-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
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Client ID: QMCM-GW 37 4-9'

Lab ID: 1705257-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.1 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.9 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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Client ID: QMCM-GW 37 14'-19'

Lab ID: 1705257-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 37 14'-19'

Lab ID: 1705257-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.7 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*100 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

Lab Work Order # 1705257

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCM-GW 37 14'-19' DUP

Lab ID: 1705257-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Client ID: QMCM-GW 37 14'-19' DUP

Lab ID: 1705257-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.9 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 24 10-15'

Lab ID: 1705257-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*77.7 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*53.1 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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

Client ID: QMCM-GW 25 10-15'

Lab ID: 1705257-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*74.1 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.3 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 26 8-13

Lab ID: 1705257-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*61.6 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*74.1 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 27 8-13

Lab ID: 1705257-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*46.8 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*77.2 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 28 8-13

Lab ID: 1705257-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.11	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*44.6 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.2 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 29 8-13

Lab ID: 1705257-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*74.5 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*69.2 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

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Client ID: QMCM-GW 36 8-13

Lab ID: 1705257-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
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Client ID: QMCM-GW 36 8-13

Lab ID: 1705257-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*99.3 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.3 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

Lab Work Order # 1705257

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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Client ID: QMCM-GW 35-12'-17'

Lab ID: 1705257-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
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Client ID: QMCM-GW 35-12'-17'

Lab ID: 1705257-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.6 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.5 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 34-8-13'

Lab ID: 1705257-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Client ID: QMCM-GW 34-8-13'

Lab ID: 1705257-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.4 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.5 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 32-10'-15'

Lab ID: 1705257-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Client ID: QMCM-GW 32-10'-15'

Lab ID: 1705257-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.8 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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Client ID: QMCM-GW 33-10'-15'

Lab ID: 1705257-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A05, A08
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 33-10'-15'

Lab ID: 1705257-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*101 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*98.7 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

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

Client ID: QMCM-GW 09 10-15'

Lab ID: 1705257-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A03
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/31/17	B7E3112	8260	A03, A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	

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Client ID: QMCM-GW 09 10-15'

Lab ID: 1705257-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/31/17	B7E3112	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/31/17	B7E3112	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/31/17	B7E3112	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/31/17	B7E3112	8260	
Surrogate: Bromofluorobenzene			*98.7 %*	*85-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*82.7-115*		*05/31/17*	B7E3112	*8260*	
Surrogate: Toluene-d8			*99.8 %*	*85-115*		*05/31/17*	B7E3112	*8260*	

Lab Work Order # 1705257

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Client ID: QMCM-GW 09 10-15'

Lab ID: 1705257-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/06/17	B7E2411	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/06/17	B7E2411	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/06/17	B7E2411	8270	
Surrogate: 2-Fluorobiphenyl			*48.0 %*	*24.1-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: Nitrobenzene-d5			*35.4 %*	*17.8-115*		*06/06/17*	B7E2411	*8270*	
Surrogate: p-Terphenyl-d14			*87.5 %*	*41.8-115*		*06/06/17*	B7E2411	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/04/17	B7F0103	8081/8082	
Surrogate: Decachlorobiphenyl			*84.3 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*84.4 %*	*30-150*		*06/04/17*	B7F0103	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-GW 09 10-15'

Lab ID: 1705257-21

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/16/17	B7F0104	6020/200.8	
7440-39-3	**Barium**	**45**	5.0	ug/L	1	06/15/17	B7F0104	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/15/17	B7F0104	6020/200.8	
7440-47-3	**Chromium**	**2.4**	1.0	ug/L	1	06/15/17	B7F0104	6020/200.8	
7440-50-8	**Copper**	**2200**	1.0	ug/L	1	06/15/17	B7F0104	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/15/17	B7F0104	6020/200.8	
7439-97-6	**Mercury**	**0.5**	0.2	ug/L	1	06/07/17	B7F0510	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/16/17	B7F0104	6020/200.8	
7440-22-4	**Silver**	**8.3**	0.2	ug/L	1	06/15/17	B7F0104	6020/200.8	
7440-66-6	**Zinc**	**62**	5.0	ug/L	1	06/15/17	B7F0104	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
M0529M	Abandoned Mining Wastes- QMCM Ops	ground WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457		N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-GW 21 10-15'	5-18-17	1500		
2	02	QMCM-GW 30 - 12'-17'	5-18-17	1630		
3	03	QMCM-GW 30 - 12'-17' dup	"	1630		
4	04	QMCM-GW 31-12-17'	"	1700		
5	05	QMCM-GW 38 4-9'	5-19-17	8:50		
6	06	QMCM-GW 38 14'-19'	"	900		
7	07	QMCM-GW 37 4-9'	"	930		
8	08	QMCM-GW 37 14'-19'	"	945		
9	09	QMCM-GW 37 14'-19' DUP	"	945		
10	10	QMCM-GW 24 10-15'	5-18-17	1100		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
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
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - 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
Chlordane	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
Benzidines	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
Acids 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
ORO / GRO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	1 2 3 4 5 6 7 8 9 10
(Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Ng,Mo,Ni,Se,Ag,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

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
Boron - B	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
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN	Available Cyanide - CN (Amenable / Weak Acid Dissociable)	1 2 3 4 5 6 7 8 9 10
CA	Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN	Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN	Nitrite - NO_2	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
GN	Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN	Oissolved Solids - TDS	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
GN	Turbidity	1 2 3 4 5 6 7 8 9 10
MN	Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN	Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN	Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN	Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN	Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN	Chromium 6 - Cr+6	1 2 3 4 5 6 7 8 9 10
MN	Conductivity	1 2 3 4 5 6 7 8 9 10
MN	pH	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
GA	Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	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
GA	Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA	Nitrate+Nitrite - NO3+NO2	1 2 3 4 5 6 7 8 9 10
GA	Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA	Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org. JEFF PITCUMBE DEQ		
Signature:		5/22/17 1552
Print Name & Org.		
Signature:		
Print Name & Org.		
Signature:		

DEQ

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
M0525	Abandoned Mining Wastes- QMCM Ops	ground WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		JP
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	44251			906-337-0389
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	30843			Mannik & Smith Group
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	456457		N	Jeff Binkley
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	00			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCM-GW 25 10-15	5-19-17	1130		
2	12	QMCM-GW 26 ~~8-13~~ 8-13	5-19-17	1205		
3	13	QMCM-GW 27 ~~28~~ - 8'-13'	5-19-17	1250		
4	14	QMCM-GW 28 - 8-13'	"	1330		
5	15	QMCM-GW 29 - 8'-13'	"	1400		
6	16	QMCM-GW 36 - 8'-13'	5/20/17	0950		
7	17	QMCM-GW 35 - 12'-17'	5/20/17	1030		
8	18	QMCM-GW 34 - 8-13'	5/20/17	1141		
9	19	QMCM-GW 32 - 10'-15'	"	1208		
10	20	QMCM-GW 33 - 10'-15'	"	1242		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
- 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

METH - Methane, Ethane, Ethene
- Methane, Ethane, Ethene 1 2 3 4 5 6 7 8 9 10

ON - 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
- Chlordane 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
- Benzidines 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
- Acids 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

METALS CHEMISTRY PACKAGES

- OpMemo2 - Total 1 2 3 4 5 6 7 8 9 10
- OpMemo2 - Dissolved 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,Tl,V,Zn)
- Michigan10 - Total 1 2 3 4 5 6 7 8 9 10
- Michigan10 - Dissolved 1 2 3 4 5 6 7 8 9 10
  (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MAD - DISSOLVED METALS

- Diss - Silver - Ag 1 2 3 4 5 6 7 8 9 10
- Diss - Aluminum - Al 1 2 3 4 5 6 7 8 9 10
- Diss - Arsenic - As 1 2 3 4 5 6 7 8 9 10
- Diss - Boron - B 1 2 3 4 5 6 7 8 9 10
- Diss - Barium - Ba 1 2 3 4 5 6 7 8 9 10
- Diss - Beryllium - Be 1 2 3 4 5 6 7 8 9 10
- Diss - Cadmium - Cd 1 2 3 4 5 6 7 8 9 10
- Diss - Cobalt - Co 1 2 3 4 5 6 7 8 9 10
- Diss - Chromium - Cr 1 2 3 4 5 6 7 8 9 10
- Diss - Copper - Cu 1 2 3 4 5 6 7 8 9 10
- Diss - Iron - Fe 1 2 3 4 5 6 7 8 9 10
- Diss - Mercury - Hg 1 2 3 4 5 6 7 8 9 10
- Diss - Lithium - Li 1 2 3 4 5 6 7 8 9 10
- Diss - Manganese - Mn 1 2 3 4 5 6 7 8 9 10
- Diss - Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10
- Diss - Nickel - Ni 1 2 3 4 5 6 7 8 9 10
- Diss - Lead - Pb 1 2 3 4 5 6 7 8 9 10
- Diss - Antimony - Sb 1 2 3 4 5 6 7 8 9 10
- Diss - Selenium - Se 1 2 3 4 5 6 7 8 9 10
- Diss - Strontium - Sr 1 2 3 4 5 6 7 8 9 10
- Diss - Titanium - Ti 1 2 3 4 5 6 7 8 9 10
- Diss - Thallium - Tl 1 2 3 4 5 6 7 8 9 10
- Diss - Uranium - U 1 2 3 4 5 6 7 8 9 10
- Diss - Vanadium - V 1 2 3 4 5 6 7 8 9 10
- Diss - Zinc - Zn 1 2 3 4 5 6 7 8 9 10
- Diss - Calcium - Ca 1 2 3 4 5 6 7 8 9 10
- Diss - Potassium - K 1 2 3 4 5 6 7 8 9 10
- Diss - Magnesium - Mg 1 2 3 4 5 6 7 8 9 10
- Diss - Sodium - Na 1 2 3 4 5 6 7 8 9 10
- Diss - Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10

MD - Metals Dissolved
- Lab Filtration 1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

- 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
- Boron - B 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
- Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10

LHG - Low Level Mercury
- Mercury Low Level - Hg 1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

- GB Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10
- GCN Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10
  (Amenable / Weak Acid Dissociable)
- CA Chlorophyll 1 2 3 4 5 6 7 8 9 10
- GN Ortho Phosphate - OP 1 2 3 4 5 6 7 8 9 10
- GN Nitrite - NO_2 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
- GN Suspended Solids - SS 1 2 3 4 5 6 7 8 9 10
- GN Dissolved Solids - TDS 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
- GN Turbidity 1 2 3 4 5 6 7 8 9 10
- MN Total Alkalinity 1 2 3 4 5 6 7 8 9 10
- MN Bicarb/Carb Alkalinity 1 2 3 4 5 6 7 8 9 10
  (includes Total Alkalinity)
- MN Chloride - Cl 1 2 3 4 5 6 7 8 9 10
- MN Fluoride - F 1 2 3 4 5 6 7 8 9 10
- MN Sulfate - SO4 1 2 3 4 5 6 7 8 9 10
- MN Chromium 6 - Cr+6 1 2 3 4 5 6 7 8 9 10
- MN Conductivity 1 2 3 4 5 6 7 8 9 10
- MN pH 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
- GA Diss Org Carbon - DOC (FF) 1 2 3 4 5 6 7 8 9 10
  (Field - Filtered & Preserved)
- GN Diss Org Carbon - DOC (LF) 1 2 3 4 5 6 7 8 9 10
  (Lab - Filtered & Preserved)
- GA Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10
- GA Ammonia - NH3 1 2 3 4 5 6 7 8 9 10
- GA Nitrate+Nitrite - NO3+NO2 1 2 3 4 5 6 7 8 9 10
- GA Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10
- GA Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org. JEFF PINCUMBE DEQ	Melissa Smith	
Signature:		5/20/17 1552
Print Name & Org.		
Signature:		
Print Name & Org.		
Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
17G5257	Abandoned Mining Wastes- QMCM Ops	ground WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: JP	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1:	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	21	QMCM-GW09 - 10'-15'	5/20/17	1400		
2		QMCM-GW				
3		QMCM-GW				
4		QMCM-GW				
5		QMCM-GW				
6		QMCM-GW				
7		QMCM-GW				
8		QMCM-GW				
9		QMCM-GW				
10		QMCM-GW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
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
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - 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
Chlordane	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
Benzidines	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
Acids 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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved (Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	1 2 3 4 5 6 7 8 9 10
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved	
Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

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
Boron - B	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
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN	Available Cyanide - CN (Amenable / Weak Acid Dissociable)	1 2 3 4 5 6 7 8 9 10
CA	Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN	Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN	Nitrite - NO_2	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
GN	Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN	Dissolved Solids - TDS	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
GN	Turbidity	1 2 3 4 5 6 7 8 9 10
MN	Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN	Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN	Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN	Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN	Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN	Chromium 6 - Cr+6	1 2 3 4 5 6 7 8 9 10
MN	Conductivity	1 2 3 4 5 6 7 8 9 10
MN	pH	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
GA	Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	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
GA	Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA	Nitrate+Nitrite - NO3+NO2	1 2 3 4 5 6 7 8 9 10
GA	Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA	Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE DEQ	Melissa Smith	
Signature:			5/23/17 1552
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

11 July 2017

Work Order: 1706166

Price: $3,492.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCM Ops

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
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MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCM Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
07/11/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCM-SW 01	1706166-01	Water	06/08/2017	06/14/2017	
QMCM-SW 02	1706166-02	Water	06/09/2017	06/14/2017	
QMCM-SW 03	1706166-03	Water	06/09/2017	06/14/2017	
QMCM-SW 03 Duplicate	1706166-04	Water	06/09/2017	06/14/2017	
QMCM-SW 04	1706166-05	Water	06/09/2017	06/14/2017	
QMCM-SW 05	1706166-06	Water	06/09/2017	06/14/2017	
QMCM-SW 08	1706166-07	Water	06/09/2017	06/14/2017	
QMCM-SW 07	1706166-08	Water	06/09/2017	06/14/2017	
QMCM-SW 06	1706166-09	Water	06/09/2017	06/14/2017	

Notes and Definitions

A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

Lab Work Order # 1706166

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TEL: (517) 335-9800
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Client ID: QMCM-SW 01

Lab ID: 1706166-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*37.7 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*31.3 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*70.1 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*73.4 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*59.3 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SW 01

Lab ID: 1706166-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-39-3	**Barium**	**18**	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-50-8	**Copper**	**41**	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 02

Lab ID: 1706166-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*39.5 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*33.3 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*71.9 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*79.0 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*58.7 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

STATE OF MICHIGAN
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FAX: (517) 335-9600

Client ID: QMCM-SW 02

Lab ID: 1706166-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-39-3	**Barium**	**430**	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-50-8	**Copper**	**40**	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-66-6	**Zinc**	**6.4**	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	

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Client ID: QMCM-SW 03

Lab ID: 1706166-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*62.0 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*51.0 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*75.6 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*73.7 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*55.2 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SW 03

Lab ID: 1706166-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-39-3	**Barium**	**75**	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-47-3	**Chromium**	**1.3**	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-50-8	**Copper**	**94**	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F1919	6020/200.8	
7440-66-6	**Zinc**	**9.4**	5.0	ug/L	1	06/27/17	B7F1919	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 03 Duplicate

Lab ID: 1706166-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*41.0 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*33.2 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*73.8 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*69.1 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*52.3 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 03 Duplicate

Lab ID: 1706166-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**76**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	**Chromium**	**1.3**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**100**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	**Zinc**	**9.7**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

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Client ID: QMCM-SW 04

Lab ID: 1706166-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*53.3 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*43.1 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*77.3 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*70.6 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*55.9 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 04

Lab ID: 1706166-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**25**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**37**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

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Client ID: QMCM-SW 05

Lab ID: 1706166-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*46.5 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*37.8 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*69.7 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*63.7 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*56.8 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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Client ID: QMCM-SW 05

Lab ID: 1706166-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**23**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	**Chromium**	**1.8**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**36**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	**Zinc**	**7.6**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 08

Lab ID: 1706166-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*48.9 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*39.3 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*72.2 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.11	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*72.5 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*57.9 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCM-SW 08

Lab ID: 1706166-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**18**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**32**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

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Client ID: QMCM-SW 07

Lab ID: 1706166-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*46.5 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*37.6 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*72.3 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*62.6 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*53.3 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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Client ID: QMCM-SW 07

Lab ID: 1706166-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**140**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**8.6**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	**Lead**	**5.6**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

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TEL: (517) 335-9800
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Client ID: QMCM-SW 06

Lab ID: 1706166-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/16/17	B7F1301	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	06/16/17	B7F1301	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	06/16/17	B7F1301	8270	
Surrogate: 2-Fluorobiphenyl			*53.2 %*	*24.1-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: Nitrobenzene-d5			*42.3 %*	*17.8-115*		*06/16/17*	B7F1301	*8270*	
Surrogate: p-Terphenyl-d14			*75.6 %*	*41.8-115*		*06/16/17*	B7F1301	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	06/22/17	B7F2101	8081/8082	
Surrogate: Decachlorobiphenyl			*72.6 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*60.5 %*	*30-150*		*06/22/17*	B7F2101	*8081/8082*	

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Client ID: QMCM-SW 06

Lab ID: 1706166-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-39-3	**Barium**	**120**	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-50-8	**Copper**	**20**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-92-1	**Lead**	**17**	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	07/06/17	B7F2714	7470/245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	06/27/17	B7F2303	6020/200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	06/27/17	B7F2303	6020/200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1706166	Abandoned Mining Wastes- QMCM Ops	surface WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: BE	
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 44251	CC Email 2:	Project Due Date:	Sample Collector Phone: 906-337-0389	
State Project Manager: Amy Keranen	PCA: 30843	CC Email 3:		Contract Firm: Mannik & Smith Group	
State Project Manager Email: keranena@michigan.gov	Project: 456457	Overflow Lab Choice 1:	Accept Analysis hold time codes: N	Contract Firm Primary Contact: Jeff Binkley	
State Project Manager Phone: 906-337-0389	Phase: 00	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCM-SW 01	6/8/17	1425	3	
2	02	QMCM-SW 02	6/9/17	0845	3	
3	03	QMCM-SW 03	6/9/17	0950	3	
4	04	QMCM-SW 03 Duplicate	6/9/17	0955	3	
5	05	QMCM-SW 04	6/9/17	1035	3	
6	06	QMCM-SW 05	6/9/17	1350	3	
7	07	QMCM-SW 08	6/9/17	1450	3	
8	08	QMCM-SW 07	6/9/17	1545	3	
9	09	QMCM-SW 06	6/9/17	1555	3	
10		QMCM-SW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
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
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - 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
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	ND 1 2 3 4 5 6 7 8 9 10
Benzidines	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
Acids 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

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	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,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved	
Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

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
Boron - B	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
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN Available Cyanide - CN (Amenable / Weak Acid Dissociable)	1 2 3 4 5 6 7 8 9 10
CA Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN Nitrite - NO_2	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
GN Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN Dissolved Solids - TDS	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
GN Turbidity	1 2 3 4 5 6 7 8 9 10
MN Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN Chromium 6 - Cr+6	1 2 3 4 5 6 7 8 9 10
MN Conductivity	1 2 3 4 5 6 7 8 9 10
MN pH	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
GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	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
GA Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA Nitrate+Nitrite - NO3+NO2	1 2 3 4 5 6 7 8 9 10
GA Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org.: Brian Eckles DEQ	Melissa Smith	
Signature:	0855	6/14/17 1330
Print Name & Org.:		
Signature:		
Print Name & Org.:		
Signature:		