

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: MACKINAC ENVIRONMENTAL
Name:
ClientProj: M91-090
GTA ProjNo: 021921-3

Site Addr: USA 311

Sampled By: SLR/MJR - MET
Date Rec: 2/19/2021
Time Rec: 11:50 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	VW-3	2/17/2021	1:50 PM	WATER
2	VW-5	2/17/2021	2:12 PM	WATER
3	MW-14	2/17/2021	2:32 PM	WATER
4	MW-1R	2/17/2021	3:30 PM	WATER
5	MW-6	2/17/2021	4:03 PM	WATER
6	A-3	2/17/2021	4:58 PM	WATER
7	MW-16	2/17/2021	5:32 PM	WATER
8	MW-21	2/17/2021	4:15 PM	WATER
9	MW-25	2/17/2021	4:42 PM	WATER
10	MW-10	2/17/2021	4:28 PM	WATER

ELECTRONIC SIGNATURE REPORT. This is a final report for the following pages of data for the samples specified above. All analysis was performed by the methods stated and all quality control measures required were completed. All quality control information is available upon request.

Kirk Chase

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M91-090

LOCATION: USA 311

MI

SAMPLE MATRIX: WATER

SAMPLE ID: VW-3

GTA PROJECT NO: 021921-3

GTA SAMPLE NO: 1

DATE SAMPLED: 2/17/2021

TIME SAMPLED: 1:50 PM

DATE RECEIVED: 2/19/2021

TIME RECEIVED: 11:50 AM

SAMPLED BY: SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	260	10	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	3.4	1.0					
Ethylbenzene	2.9	1.0					
Xylene(Total)	71	3.0					
1,2,4-Trimethylbenzene	170	10					
1,3,5-Trimethylbenzene	1.2	1.0					
Methyl-t-Butyl Ether	50	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	2
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	2:12 PM
	MI	DATE RECEIVED:	2/19/2021
		TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-5	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	3
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	2:32 PM
		DATE RECEIVED:	2/19/2021
	MI	TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-14	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	4
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	3:30 PM
		DATE RECEIVED:	2/19/2021
	MI	TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-1R	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	2,900	20	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	1,000	20					
Ethylbenzene	250	20					
Xylene(Total)	1,500	60					
1,2,4-Trimethylbenzene	880	20					
1,3,5-Trimethylbenzene	270	20					
Methyl-t-Butyl Ether	210	5.0					
Naphthalene	100	5.0					
2-Methylnaphthalene	18	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	5
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	4:03 PM
		DATE RECEIVED:	2/19/2021
	MI	TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-6	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	30	1.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	5.5	1.0					
Ethylbenzene	150	10					
Xylene(Total)	710	21					
1,2,4-Trimethylbenzene	360	10					
1,3,5-Trimethylbenzene	91	1.0					
Methyl-t-Butyl Ether	19	5.0					
Naphthalene	11	5.0					
2-Methylnaphthalene	47	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	6
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	4:58 PM
	MI	DATE RECEIVED:	2/19/2021
		TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	A-3	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	560	50	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	150	5.0					
Ethylbenzene	3,300	50					
Xylene(Total)	2,400	150					
1,2,4-Trimethylbenzene	920	50					
1,3,5-Trimethylbenzene	240	5.0					
Methyl-t-Butyl Ether	1,100	50					
Naphthalene	170	12					
2-Methylnaphthalene	43	12					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	7
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	5:32 PM
	MI	DATE RECEIVED:	2/19/2021
		TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-16	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	230	5.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	520	100					
Ethylbenzene	290	100					
Xylene(Total)	1,400	300					
1,2,4-Trimethylbenzene	2,100	100					
1,3,5-Trimethylbenzene	690	100					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	81	12					
2-Methylnaphthalene	43	12					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M91-090

LOCATION: USA 311

MI

SAMPLE MATRIX: WATER

SAMPLE ID: MW-21

GTA PROJECT NO: 021921-3

GTA SAMPLE NO: 8

DATE SAMPLED: 2/17/2021

TIME SAMPLED: 4:15 PM

DATE RECEIVED: 2/19/2021

TIME RECEIVED: 11:50 AM

SAMPLED BY: SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 021921-3

PROJECT NO: M91-090

GTA SAMPLE NO: 9

LOCATION: USA 311

DATE SAMPLED: 2/17/2021

TIME SAMPLED: 4:42 PM

MI

DATE RECEIVED: 2/19/2021

TIME RECEIVED: 11:50 AM

SAMPLE MATRIX: WATER

SAMPLE ID: MW-25

SAMPLED BY: SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	300	5.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	5.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	220	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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LOD = LIMIT OF DETECTION

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	021921-3
PROJECT NO:	M91-090	GTA SAMPLE NO:	10
LOCATION:	USA 311	DATE SAMPLED:	2/17/2021
		TIME SAMPLED:	4:28 PM
	MI	DATE RECEIVED:	2/19/2021
		TIME RECEIVED:	11:50 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-10	SAMPLED BY:	SLR/MJR - MET

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	120	5.0	ug/L (PPB)	MR		2/20/2021	EPA 5030B
Toluene	1.4	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	10	3.0					
1,2,4-Trimethylbenzene	16	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	260	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	6.1	5.0					

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M91-090

LOCATION: USA 311

GTA PROJECT NO: 021921-3

GTA SAMPLE NO: 5

DATE SAMPLED: 2/17/2021

TIME SAMPLED: 4:03 PM

SAMPLED BY: MI
SLR/MJR - MET

DATE RECEIVED: 2/19/2021

TIME RECEIVED: 11:50 AM

SAMPLE MATRIX: WATER

SAMPLE ID: MW-6

PNA EPA 8270C (SIM)

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	2/22/2021	2/22/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M91-090
LOCATION: USA 311

GTA PROJECT NO: 021921-3
GTA SAMPLE NO: 6

DATE SAMPLED: 2/17/2021
TIME SAMPLED: 4:58 PM

SAMPLED BY: MI
SLR/MJR - MET

DATE RECEIVED: 2/19/2021
TIME RECEIVED: 11:50 AM

SAMPLE MATRIX: WATER
SAMPLE ID: A-3

PNA EPA 8270C (SIM)

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	2/22/2021	2/22/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M91-090

LOCATION: USA 311

SAMPLED BY: MI
SLR/MJR - MET

SAMPLE MATRIX: WATER

SAMPLE ID: MW-16

GTA PROJECT NO: 021921-3

GTA SAMPLE NO: 7

DATE SAMPLED: 2/17/2021

TIME SAMPLED: 5:32 PM

DATE RECEIVED: 2/19/2021

TIME RECEIVED: 11:50 AM

PNA EPA 8270C (SIM)

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	2/22/2021	2/22/2021	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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