



**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

[www.gtanalytical.com](http://www.gtanalytical.com)

Company: GCES  
Name:  
ClientProj: 2023520001  
GTA ProjNo: 031924-13

Site Addr: CLEAR LAKE STATE PARK

Sampled By: T. ACKLER/GCES  
Date Rec: 3/19/2024  
Time Rec: 1:48 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-1S	3/19/2024	8:20 AM	WATER
2	MW-1D	3/19/2024	9:00 AM	WATER
3	MW-2	3/19/2024	11:18 AM	WATER
4	MW-3	3/18/2024	4:50 PM	WATER
5	MW-4	3/19/2024	10:32 AM	WATER
6	MW-5	3/19/2024	9:50 AM	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*

Kirk L. Chase/Chemist  
Grand Traverse Analytical  
830 Robinwood Court  
Traverse City, MI 49686  
Ph: 231-929-0905  
Fx: 231-929-0894  
SP: 231-590-0291  
[kirk@gtanalytical.com](mailto:kirk@gtanalytical.com)



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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	1
LOCATION:	CLEAR LAKE STATE PARK	DATE SAMPLED:	3/19/2024
		TIME SAMPLED:	8:20 AM
		DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
SAMPLED BY:	T. ACKLER/GCES	SAMPLE MATRIX:	WATER
SAMPLE ID:	MW-1S		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	ND	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.32	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	4.3	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

ND = NOT DETECTED, RESULT < LOD  
 LOD = LIMIT OF DETECTION  
 DISS = DISSOLVED



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COMPANY: GCES  
PROJECT NO: 2023520001  
LOCATION: CLEAR LAKE STATE PARK  
MI  
SAMPLED BY: T. ACKLER/GCES  
SAMPLE ID: MW-1S  
GTA PROJECT NO: 031924-13  
GTA SAMPLE NO: 1  
DATE RECEIVED: 3/19/2024  
TIME RECEIVED: 1:48 PM  
DATE SAMPLED: 3/19/2024  
TIME SAMPLED: 8:20 AM  
SAMPLE MATRIX: WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	13	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	0.22	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	5.5	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	0.026	0.010	mg/L (PPM)	TR	3/26/2024

ND = NOT DETECTED, RESULT < LOD  
LOD = LIMIT OF DETECTION  
s.u. = STANDARD pH UNITS REPORTED AT 25 C  
DISS = DISSOLVED



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COMPANY: GCES  
PROJECT NO: 2023520001  
LOCATION: CLEAR LAKE STATE PARK  
MI  
SAMPLED BY: T. ACKLER/GCES  
SAMPLE ID: MW-1D  
GTA PROJECT NO: 031924-13  
GTA SAMPLE NO: 2  
DATE SAMPLED: 3/19/2024  
TIME SAMPLED: 9:00 AM  
DATE RECEIVED: 3/19/2024  
TIME RECEIVED: 1:48 PM  
SAMPLE MATRIX: WATER

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	ND	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	0.0029	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.90	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	6.0	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

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COMPANY: GCES  
PROJECT NO: 2023520001  
LOCATION: CLEAR LAKE STATE PARK  
MI  
SAMPLED BY: T. ACKLER/GCES  
SAMPLE ID: MW-1D  
GTA PROJECT NO: 031924-13  
GTA SAMPLE NO: 2  
DATE RECEIVED: 3/19/2024  
TIME RECEIVED: 1:48 PM  
DATE SAMPLED: 3/19/2024  
TIME SAMPLED: 9:00 AM  
SAMPLE MATRIX: WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	0.25	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	5.4	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	ND	0.010	mg/L (PPM)	TR	3/26/2024

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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	3
LOCATION:	CLEAR LAKE STATE PARK	DATE SAMPLED:	3/19/2024
		TIME SAMPLED:	11:18 AM
		DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
SAMPLED BY:	T. ACKLER/GCES	SAMPLE MATRIX:	WATER
SAMPLE ID:	MW-2		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	ND	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.31	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	1.9	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	3
LOCATION:	CLEAR LAKE STATE PARK	DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
	MI	DATE SAMPLED:	3/19/2024
SAMPLED BY:	T. ACKLER/GCES	TIME SAMPLED:	11:18 AM
SAMPLE ID:	MW-2	SAMPLE MATRIX:	WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	4.8	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	ND	0.010	mg/L (PPM)	TR	3/26/2024

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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	4
LOCATION:	CLEAR LAKE STATE PARK	DATE SAMPLED:	3/18/2024
		TIME SAMPLED:	4:50 PM
		DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
SAMPLED BY:	T. ACKLER/GCES	SAMPLE MATRIX:	WATER
SAMPLE ID:	MW-3		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	0.098	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	0.0071	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.30	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	2.9	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

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COMPANY: GCES  
PROJECT NO: 2023520001  
LOCATION: CLEAR LAKE STATE PARK  
MI  
SAMPLED BY: T. ACKLER/GCES  
SAMPLE ID: MW-3

GTA PROJECT NO: 031924-13  
GTA SAMPLE NO: 4  
DATE RECEIVED: 3/19/2024  
TIME RECEIVED: 1:48 PM  
DATE SAMPLED: 3/18/2024  
TIME SAMPLED: 4:50 PM  
SAMPLE MATRIX: WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	13	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	4.9	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	ND	0.010	mg/L (PPM)	TR	3/26/2024

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LOD = LIMIT OF DETECTION  
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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	5
LOCATION:	CLEAR LAKE STATE PARK	DATE SAMPLED:	3/19/2024
		TIME SAMPLED:	10:32 AM
		DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
SAMPLED BY:	T. ACKLER/GCES	SAMPLE MATRIX:	WATER
SAMPLE ID:	MW-4		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	ND	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	0.0027	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.40	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	4.6	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	5
LOCATION:	CLEAR LAKE STATE PARK	DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
	MI	DATE SAMPLED:	3/19/2024
SAMPLED BY:	T. ACKLER/GCES	TIME SAMPLED:	10:32 AM
SAMPLE ID:	MW-4	SAMPLE MATRIX:	WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	18	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	6.8	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	0.021	0.010	mg/L (PPM)	TR	3/26/2024

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 LOD = LIMIT OF DETECTION  
 s.u. = STANDARD pH UNITS REPORTED AT 25 C  
 DISS = DISSOLVED



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COMPANY:	GCES	GTA PROJECT NO:	031924-13
PROJECT NO:	2023520001	GTA SAMPLE NO:	6
LOCATION:	CLEAR LAKE STATE PARK	DATE SAMPLED:	3/19/2024
		TIME SAMPLED:	9:50 AM
		DATE RECEIVED:	3/19/2024
		TIME RECEIVED:	1:48 PM
SAMPLED BY:	T. ACKLER/GCES	SAMPLE MATRIX:	WATER
SAMPLE ID:	MW-5		

**METALS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 200.8	ND	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
IRON TOTAL EPA 200.8	ND	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
MANGANESE TOTAL EPA 200.8	0.0024	0.0010	mg/L (PPM)	MR	3/25/2024	EPA 3005A
POTASSIUM TOTAL EPA 200.8	0.33	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A
SODIUM TOTAL EPA 200.8	5.6	0.050	mg/L (PPM)	MR	3/25/2024	EPA 3005A

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COMPANY: GCES  
PROJECT NO: 2023520001  
LOCATION: CLEAR LAKE STATE PARK  
MI  
SAMPLED BY: T. ACKLER/GCES  
SAMPLE ID: MW-5

GTA PROJECT NO: 031924-13  
GTA SAMPLE NO: 6  
DATE RECEIVED: 3/19/2024  
TIME RECEIVED: 1:48 PM  
DATE SAMPLED: 3/19/2024  
TIME SAMPLED: 9:50 AM  
SAMPLE MATRIX: WATER

**SAMPLE ANALYSIS**

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	ND	0.015	mg/L (PPM)	KC	3/31/2024
CHLORIDE EPA 300.0	13	10	mg/L (PPM)	KC/TR	3/21/2024
NITRATE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
NITRITE-N EPA 300.0	ND	0.20	mg/L (PPM)	KC/TR	3/21/2024
SULFATE EPA 300.0	6.5	1.0	mg/L (PPM)	KC	3/25/2024
TOTAL PHOSPHORUS EPA 365.2	ND	0.010	mg/L (PPM)	TR	3/26/2024

ND = NOT DETECTED, RESULT < LOD  
LOD = LIMIT OF DETECTION  
s.u. = STANDARD pH UNITS REPORTED AT 25 C  
DISS = DISSOLVED

