

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: FIFE LAKE AREA UTILITY AUTHORITY
Name:
ClientProj: ANNUAL MONITORING WELLS &
GTA ProjNo: 080723-1

Site Addr: 10701 VAN'S LANE

Sampled By: FIFE LAKE
RAY RAVARY/FLAUA

Date Rec: 8/7/2023

Time Rec: 11:30 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-12	8/7/2023	10:25 AM	WATER
2	MW-5	8/7/2023	9:38 AM	WATER
3	MW-7	8/7/2023	9:57 AM	WATER
4	MW-13	8/7/2023	9:09 AM	WATER
5	MW-14	8/7/2023	9:24 AM	WATER
6	MW-15	8/7/2023	10:07 AM	WATER
7	EFFLUENT	8/7/2023	10:30 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
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Traverse City, MI 49686
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COMPANY: FIFE LAKE AREA UTILITY AUTHORITY
PROJECT NO: ANNUAL MONITORING WELLS &
LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-12

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 1
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 10:25 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	110	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	54	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	30	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	500	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	13	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	<0.0020	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	4.1	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	4.9	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	19	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	10	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	4.1	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	TR	8/14/2023

ND = NOT DETECTED, RESULT < LOD

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MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-5

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 2
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 9:38 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	200	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	50	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	120	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	780	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	9.2	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	0.0029	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	1.6	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	2.8	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	49	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	8.1	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	1.6	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	TR	8/14/2023

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FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-7

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 3
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 9:57 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	83	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	11	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	39	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	340	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	12	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	0.0051	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	0.49	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	6.8	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	30	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	3.5	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	0.49	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	TR	8/14/2023

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LOCATION: 10701 VAN'S LANE
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MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-13

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 4
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 9:09 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	240	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	96	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	42	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	730	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	17	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	0.0023	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	4.5	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	32	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	6.8	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	5.3	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	4.5	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	0.019	0.010	mg/L (PPM)	TR	8/14/2023

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FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-14

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 5
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 9:24 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	190	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	0.060	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	63	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	52	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	610	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	12	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	0.0046	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	2.8	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	4.5	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	18	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	7.8	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	2.9	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	TR	8/14/2023

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LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: MW-15

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 6
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 10:07 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
ALKALINITY SM 4500CO2D (BICARBONATE)	140	10	mg/L (PPM)	TR	8/10/2023
ALKALINITY SM 4500CO2D (CARBONATE)	<10	10	mg/L (PPM)	TR	8/10/2023
AMMONIA-N EPA 350.1	<0.015	0.015	mg/L (PPM)	KC	8/14/2023
CALCIUM DISS EPA 200.8	40	0.20	mg/L (PPM)	MR	8/11/2023
CHLORIDE EPA 300.0	36	10	mg/L (PPM)	KC	8/8/2023
CONDUCTIVITY SM2510-B	500	1.0	uS/cm@25C	TR	8/8/2023
IRON DISS EPA 200.8	<0.020	0.020	mg/L (PPM)	MR	8/11/2023
MAGNESIUM DISS EPA 200.8	8.6	0.20	mg/L (PPM)	MR	8/11/2023
MANGANESE DISS EPA 200.8	<0.0020	0.0020	mg/L (PPM)	MR	8/11/2023
NITRATE-N EPA 300.0	6.4	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
POTASSIUM DISS EPA 200.8	2.8	0.20	mg/L (PPM)	MR	8/11/2023
SODIUM DISS EPA 200.8	17	0.20	mg/L (PPM)	MR	8/11/2023
SULFATE EPA 300.0	14	1.0	mg/L (PPM)	KC	8/8/2023
TOTAL INORGANIC NITROGEN	6.4	0.42	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	<0.010	0.010	mg/L (PPM)	TR	8/14/2023

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PROJECT NO: ANNUAL MONITORING WELLS &
LOCATION: 10701 VAN'S LANE
FIFE LAKE
MI
SAMPLED BY: RAY RAVARY/FLAUA
SAMPLE ID: EFFLUENT

GTA PROJECT NO: 080723-1
GTA SAMPLE NO: 7
DATE RECEIVED: 8/7/2023
TIME RECEIVED: 11:30 AM
DATE SAMPLED: 8/7/2023
TIME SAMPLED: 10:30 AM
SAMPLE MATRIX: WATER

SAMPLE RESULTS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>
AMMONIA-N EPA 350.1	13	0.15	mg/L (PPM)	KC	8/14/2023
CHLORIDE EPA 300.0	190	10	mg/L (PPM)	KC	8/8/2023
NITRATE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
NITRITE-N EPA 300.0	<0.20	0.20	mg/L (PPM)	KC	8/8/2023
SODIUM EPA 200.8	74	10	mg/L (PPM)	MR	8/11/2023
TOTAL INORGANIC NITROGEN	13	0.55	mg/L (PPM)	KC	8/14/2023
TOTAL PHOSPHORUS EPA 365.3	3.6	0.020	mg/L (PPM)	TR	8/14/2023

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CHAIN OF CUSTODY

PROJECT NUMBER	SITE NAME/ADDRESS	COMPANY/NAME
	10701 Vans Lane F, Lake MI	FLAUA
SAMPLED BY	COMPANY	GTA PROJECT #
Ray Ravary	FLAUA	080723-1

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
2	MW 12	↑	1025	w/w	Annual MW
2	MW 5	↑	938	w/w	
2	MW 7	↑	951	w/w	
2	MW 13	8-7-23	909	w/w	
2	MW 14	↓	924	w/w	
2	MW 15	↓	10:07	w/w	
2	Effluent	✓	1030	w/w	Bi. monthly Eff

BILL TO: FLAUA
c/o H+R Block
Kingsley

TempRec: ☐

2.90C

On Ice? ☒ ☐

REPORT TO:
RRAVARY @ provide-net
FLAUA @ Att.com

RELEASED BY

DATE/TIME

RECEIVED BY

DATE/TIME

Ray Ravary

8-7-23 1130

K. Ch

8/7/23 11:30

REQUESTED TAT ☐ STANDARD ☐ 1 BUSINESS DAY ☐ 2 BUSINESS DAYS ☐ 3 BUSINESS DAYS