



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: MILLER ENERGY COMPANY II, LLC
Name:
ClientProj: QUARTERLY INJECTION FLUID ANALYSIS
GTA ProjNo: 092922-16

Site Addr: EPA-UIC ANALYSIS

Sampled By: DAVE SMITH/MECII
Date Rec: 9/29/2022
Time Rec: 4:40 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	CONSERVATION ESTATES 5-5 SWD	9/23/2022	10:00 AM	WATER
2	FRED E. BEUTLER 2 SWD	9/23/2022	9:00 AM	WATER
3	HAROLD CUMMINGS 1-33 SWD	9/23/2022	11:00 AM	WATER
4	JOHN CUMMINGS 1-33	9/23/2022	10:55 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
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COMPANY:	MILLER ENERGY COMPANY II, LLC	GTA PROJECT NO:	092922-16
PROJECT NO:	QUARTERLY INJECTION FLUID ANALYSIS	GTA SAMPLE NO:	1
LOCATION:	EPA-UIC ANALYSIS	DATE SAMPLED:	9/23/2022
		TIME SAMPLED:	10:00 AM
		DATE RECEIVED:	9/29/2022
		TIME RECEIVED:	4:40 PM
SAMPLED BY:	DAVE SMITH/MECII	SAMPLE MATRIX:	WATER
SAMPLE ID:	CONSERVATION ESTATES 5-5 SWD		

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
BARIUM DISS EPA 6020A	ND	1.0	mg/L (PPM)	MR	10/12/2022	EPA 3005A
CALCIUM DISS EPA 6020A	12,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3005A
IRON TOTAL EPA 6020A	ND	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
MAGNESIUM DISS EPA 6020A	4,200	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
SODIUM DISS EPA 6020A	20,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3020A

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
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COMPANY: MILLER ENERGY COMPANY II, LLC
 PROJECT NO: QUARTERLY INJECTION FLUID ANALYSIS
 LOCATION: EPA-UIC ANALYSIS
 MI
 SAMPLED BY: DAVE SMITH/MECII
 SAMPLE ID: CONSERVATION ESTATES 5-5
 SWD

GTA PROJECT NO: 092922-16
 GTA SAMPLE NO: 1
 DATE RECEIVED: 9/29/2022
 TIME RECEIVED: 4:40 PM
 DATE SAMPLED: 9/23/2022
 TIME SAMPLED: 10:00 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>
ALKALINITY SM 4500CO2D (BICARBONATE)	28	10	mg/L (PPM)	TR	10/19/2022
ALKALINITY SM 4500CO2D (CARBONATE)	ND	10	mg/L (PPM)	TR	10/19/2022
CHLORIDE EPA 300.0	200,000	2,000	mg/L (PPM)	KC/TR	10/20/2022
pH EPA 150.1 - LAB	5.3	0.10	s.u.	TR	10/19/2022
RESISTIVITY SM 2510A	9.3	-	ohms x cm	AS	10/9/2022
SULFATE EPA 300.0	150	50	mg/L (PPM)	KC/TR	10/20/2022
SULFIDE SM 4500S D	ND	1.0	mg/L (PPM)	KC	9/30/2022
TOTAL DISSOLVED SOLIDS EPA 160.1	330,000	5.0	mg/L (PPM)	TR	10/20/2022

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COMPANY:	MILLER ENERGY COMPANY II, LLC	GTA PROJECT NO:	092922-16
PROJECT NO:	QUARTERLY INJECTION FLUID ANALYSIS	GTA SAMPLE NO:	2
LOCATION:	EPA-UIC ANALYSIS	DATE SAMPLED:	9/23/2022
		TIME SAMPLED:	9:00 AM
		DATE RECEIVED:	9/29/2022
		TIME RECEIVED:	4:40 PM
SAMPLED BY:	DAVE SMITH/MECII	SAMPLE MATRIX:	WATER
SAMPLE ID:	FRED E. BEUTLER 2 SWD		

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
BARIUM DISS EPA 6020A	ND	1.0	mg/L (PPM)	MR	10/12/2022	EPA 3005A
CALCIUM DISS EPA 6020A	11,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3005A
IRON TOTAL EPA 6020A	ND	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
MAGNESIUM DISS EPA 6020A	3,100	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
SODIUM DISS EPA 6020A	20,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3020A

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COMPANY: MILLER ENERGY COMPANY II, LLC
 PROJECT NO: QUARTERLY INJECTION FLUID ANALYSIS
 LOCATION: EPA-UIC ANALYSIS
 MI
 SAMPLED BY: DAVE SMITH/MECII
 SAMPLE ID: HAROLD CUMMINGS 1-33 SWD

GTA PROJECT NO: 092922-16
 GTA SAMPLE NO: 3
 DATE RECEIVED: 9/29/2022
 TIME RECEIVED: 4:40 PM
 DATE SAMPLED: 9/23/2022
 TIME SAMPLED: 11:00 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>
ALKALINITY SM 4500CO2D (BICARBONATE)	78	10	mg/L (PPM)	TR	10/19/2022
ALKALINITY SM 4500CO2D (CARBONATE)	ND	10	mg/L (PPM)	TR	10/19/2022
CHLORIDE EPA 300.0	210,000	2,000	mg/L (PPM)	KC/TR	10/20/2022
pH EPA 150.1 - LAB	5.7	0.10	s.u.	TR	10/19/2022
RESISTIVITY SM 2510A	9.3	-	ohms x cm	AS	10/9/2022
SULFATE EPA 300.0	190	50	mg/L (PPM)	KC/TR	10/20/2022
SULFIDE SM 4500S D	ND	1.0	mg/L (PPM)	KC	9/30/2022
TOTAL DISSOLVED SOLIDS EPA 160.1	320,000	5.0	mg/L (PPM)	TR	10/20/2022

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COMPANY:	MILLER ENERGY COMPANY II, LLC	GTA PROJECT NO:	092922-16
PROJECT NO:	QUARTERLY INJECTION FLUID ANALYSIS	GTA SAMPLE NO:	4
LOCATION:	EPA-UIC ANALYSIS	DATE SAMPLED:	9/23/2022
		TIME SAMPLED:	10:55 AM
		DATE RECEIVED:	9/29/2022
	MI	TIME RECEIVED:	4:40 PM
SAMPLED BY:	DAVE SMITH/MECII	SAMPLE MATRIX:	WATER
SAMPLE ID:	JOHN CUMMINGS 1-33		

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
BARIUM DISS EPA 6020A	ND	1.0	mg/L (PPM)	MR	10/12/2022	EPA 3005A
CALCIUM DISS EPA 6020A	18,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3005A
IRON TOTAL EPA 6020A	ND	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
MAGNESIUM DISS EPA 6020A	3,600	10	mg/L (PPM)	MR	10/12/2022	EPA 3020A
SODIUM DISS EPA 6020A	35,000	100	mg/L (PPM)	MR	10/12/2022	EPA 3020A

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