



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: BREITBURN OPERATING
Name:
ClientProj: 20-157
GTA ProjNo: 041522-8

Site Addr: JOSEPH 1
Sampled By: WPM/OMPC
Date Rec: 4/15/2022
Time Rec: 3:25 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-1D	4/14/2022	4:30 PM	WATER
2	MW-2	4/14/2022	4:40 PM	WATER
3	MW-3D	4/14/2022	1:40 PM	WATER
4	MW-4	4/14/2022	3:10 PM	WATER
5	MW-8	4/14/2022	2:35 PM	WATER
6	MW-9	4/14/2022	3:50 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

Kirk L. Chase/Chemist
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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-157
LOCATION: JOSEPH 1
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-1D
GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 1
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 4:30 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM
SAMPLED BY: WPM/OMPC

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	1,900	10	ug/L (PPB)	MR		4/18/2022	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	160	10					
Xylene(Total)	270	21					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION



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COMPANY: BREITBURN OPERATING

PROJECT NO: 20-157
LOCATION: JOSEPH 1

MI

SAMPLE MATRIX: WATER
SAMPLE ID: MW-2

GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 2

DATE SAMPLED: 4/14/2022
TIME SAMPLED: 4:40 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM

SAMPLED BY: WPM/OMPC

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	ND	1.0	ug/L (PPB)	MR		4/18/2022	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-157
 LOCATION: JOSEPH 1
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-3D

GTA PROJECT NO: 041522-8
 GTA SAMPLE NO: 3
 DATE SAMPLED: 4/14/2022
 TIME SAMPLED: 1:40 PM
 DATE RECEIVED: 4/15/2022
 TIME RECEIVED: 3:25 PM

SAMPLED BY: WPM/OMPC

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	ND	1.0	ug/L (PPB)	MR		4/18/2022	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-157
 LOCATION: JOSEPH 1
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-4

GTA PROJECT NO: 041522-8
 GTA SAMPLE NO: 4
 DATE SAMPLED: 4/14/2022
 TIME SAMPLED: 3:10 PM
 DATE RECEIVED: 4/15/2022
 TIME RECEIVED: 3:25 PM

SAMPLED BY: WPM/OMPC

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	ND	1.0	ug/L (PPB)	MR		4/18/2022	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	1.0	1.0					
Xylene(Total)	ND	3.0					

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PROJECT NO: 20-157
LOCATION: JOSEPH 1
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-8
GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 5
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 2:35 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM
SAMPLED BY: WPM/OMPC

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	ND	1.0	ug/L (PPB)	MR		4/18/2022	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-157
 LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
 GTA SAMPLE NO: 1
 DATE SAMPLED: 4/14/2022
 TIME SAMPLED: 4:30 PM
 DATE RECEIVED: 4/15/2022
 TIME RECEIVED: 3:25 PM

MI
 SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-1D						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	820	1.0	uS/cm@25C	TR	4/20/2022	WATER

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 s.u. = STANDARD pH UNITS REPORTED AT 25 C
 DISS = DISSOLVED



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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-157
LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 2
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 4:40 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM

MI
SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-2						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	540	1.0	uS/cm@25C	TR	4/20/2022	WATER

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DISS = DISSOLVED

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-157
 LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
 GTA SAMPLE NO: 3
 DATE SAMPLED: 4/14/2022
 TIME SAMPLED: 1:40 PM
 DATE RECEIVED: 4/15/2022
 TIME RECEIVED: 3:25 PM

MI
 SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-3D						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	340	1.0	uS/cm@25C	TR	4/20/2022	WATER

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PROJECT NO: 20-157
LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 4
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 3:10 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM

MI
SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-4						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	700	1.0	uS/cm@25C	TR	4/20/2022	WATER

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PROJECT NO: 20-157
LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 5
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 2:35 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM

MI
SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-8						
	CHLORIDE EPA 300.0	16	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	710	1.0	uS/cm@25C	TR	4/20/2022	WATER

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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-157
LOCATION: JOSEPH 1

GTA PROJECT NO: 041522-8
GTA SAMPLE NO: 6
DATE SAMPLED: 4/14/2022
TIME SAMPLED: 3:50 PM
DATE RECEIVED: 4/15/2022
TIME RECEIVED: 3:25 PM

MI
SAMPLED BY: WPM/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-9						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	4/20/2022	WATER
	CONDUCTIVITY SM2510-B	850	1.0	uS/cm@25C	TR	4/20/2022	WATER

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LOD = LIMIT OF DETECTION
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DISS = DISSOLVED

