



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: 20-032
GTA ProjNo: 102621-3

Site Addr: KAL 1-27

Sampled By: TIM GATES/OMPC
Date Rec: 10/26/2021
Time Rec: 3:05 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-2	10/26/2021	11:00 AM	WATER
2	MW-3	10/26/2021	11:20 AM	WATER
3	MW-4	10/26/2021	12:00 PM	WATER
4	MW-1	10/26/2021	12:30 PM	WATER
5	MW-iD	10/26/2021	1:30 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
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



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COMPANY: BREITBURN OPERATING

PROJECT NO: 20-032
LOCATION: KAL 1-27

MI

SAMPLE MATRIX: WATER
SAMPLE ID: MW-2

GTA PROJECT NO: 102621-3
GTA SAMPLE NO: 1

DATE SAMPLED: 10/26/2021
TIME SAMPLED: 11:00 AM
DATE RECEIVED: 10/26/2021
TIME RECEIVED: 3:05 PM

SAMPLED BY: TIM GATES/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		10/27/2021	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					
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



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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-3

GTA PROJECT NO: 102621-3
 GTA SAMPLE NO: 2
 DATE SAMPLED: 10/26/2021
 TIME SAMPLED: 11:20 AM
 DATE RECEIVED: 10/26/2021
 TIME RECEIVED: 3:05 PM

SAMPLED BY: TIM GATES/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		10/27/2021	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					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-4

GTA PROJECT NO: 102621-3
 GTA SAMPLE NO: 3
 DATE SAMPLED: 10/26/2021
 TIME SAMPLED: 12:00 PM
 DATE RECEIVED: 10/26/2021
 TIME RECEIVED: 3:05 PM

SAMPLED BY: TIM GATES/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		10/27/2021	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					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: BREITBURN OPERATING

PROJECT NO: 20-032
LOCATION: KAL 1-27

MI

SAMPLE MATRIX: WATER
SAMPLE ID: MW-1

GTA PROJECT NO: 102621-3
GTA SAMPLE NO: 4

DATE SAMPLED: 10/26/2021
TIME SAMPLED: 12:30 PM
DATE RECEIVED: 10/26/2021
TIME RECEIVED: 3:05 PM

SAMPLED BY: TIM GATES/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		10/27/2021	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					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 102621-3
 GTA SAMPLE NO: 5

DATE SAMPLED: 10/26/2021
 TIME SAMPLED: 1:30 PM
 DATE RECEIVED: 10/26/2021
 TIME RECEIVED: 3:05 PM

MI

SAMPLE MATRIX: WATER
 SAMPLE ID: MW-1D

SAMPLED BY: TIM GATES/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		10/28/2021	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					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27

GTA PROJECT NO: 102621-3
GTA SAMPLE NO: 1

DATE SAMPLED: 10/26/2021
TIME SAMPLED: 11:00 AM
DATE RECEIVED: 10/26/2021
TIME RECEIVED: 3:05 PM

MI
SAMPLED BY: TIM GATES/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</u>
SAMPLE ID: MW-2							
CHLORIDE EPA 300.0		25	10	mg/L (PPM)	TR	10/29/2021	WATER

ND = NOT DETECTED, RESULT < LOD
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s.u. = STANDARD pH UNITS REPORTED AT 25 C



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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27

GTA PROJECT NO: 102621-3
GTA SAMPLE NO: 2

DATE SAMPLED: 10/26/2021
TIME SAMPLED: 11:20 AM
DATE RECEIVED: 10/26/2021
TIME RECEIVED: 3:05 PM

MI
SAMPLED BY: TIM GATES/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</u>
SAMPLE ID: MW-3	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	10/29/2021	WATER

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

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 102621-3
 GTA SAMPLE NO: 3
 DATE SAMPLED: 10/26/2021
 TIME SAMPLED: 12:00 PM
 DATE RECEIVED: 10/26/2021
 TIME RECEIVED: 3:05 PM

MI
 SAMPLED BY: TIM GATES/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</u>
SAMPLE ID: MW-4	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	TR	10/29/2021	WATER

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COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL 1-27
MI
SAMPLED BY: TIM GATES/OMPC

GTA PROJECT NO: 102621-3
GTA SAMPLE NO: 4
DATE SAMPLED: 10/26/2021
TIME SAMPLED: 12:30 PM
DATE RECEIVED: 10/26/2021
TIME RECEIVED: 3:05 PM

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</u>
SAMPLE ID: MW-1	CHLORIDE EPA 300.0	130	10	mg/L (PPM)	TR	10/29/2021	WATER

ND = NOT DETECTED, RESULT < LOD
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s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL 1-27

GTA PROJECT NO: 102621-3
 GTA SAMPLE NO: 5
 DATE SAMPLED: 10/26/2021
 TIME SAMPLED: 1:30 PM
 DATE RECEIVED: 10/26/2021
 TIME RECEIVED: 3:05 PM

MI
 SAMPLED BY: TIM GATES/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</u>
SAMPLE ID: MW-1D	CHLORIDE EPA 300.0	23	10	mg/L (PPM)	TR	10/29/2021	WATER

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

CHAIN OF CUSTODY

PROJECT NUMBER 20-032	SITE NAME/ADDRESS Kal 1-27	COMPANY/NAME Breithurn
SAMPLED BY TIM GATES	COMPANY Otwell Mawby	GTA PROJECT # 102620-3

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	MW-2	10-26-21	11:00	H ₂ O	HIP's / chlorides ↓
2	MW-3	10-26-21	11:20	H ₂ O	
3	MW-4	10-26-21	12:00	H ₂ O	
4	MW-1	10-26-21	12:30	H ₂ O	
5	MW-1D	10-26-21	13:30	H ₂ O	

BILL TO: /	TempRec: <input type="checkbox"/> 10°C	On Ice? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	REPORT TO: Dan Barton
----------------------	--	--	---------------------------------

RELEASED BY Tim Gates	DATE/TIME 10/26/21 15:05	RECEIVED BY K. Mawby	DATE/TIME 10/26/21 15:05

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