



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: 060120-5

Site Addr: KAL-1-27

Sampled By: STEVEN HEMSTREET/OMPC
Date Rec: 6/1/2020
Time Rec: 9:06 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-1	5/29/2020	11:00 AM	WATER
2	MW-2	5/29/2020	11:00 AM	WATER
3	MW-3	5/29/2020	11:00 AM	WATER
4	MW-1D 84.5'-87'	5/29/2020	8:30 AM	WATER
5	MW-4 60'-70'	5/29/2020	12:00 PM	WATER
6	MW-4 70'-80'	5/29/2020	1:00 PM	WATER
7	MW-1D 60'-70'	5/28/2020	11:00 AM	WATER
8	MW-1D 69'-79'	5/28/2020	1:00 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

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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL-1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-1D 84.5'-87'

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 4
 DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 8:30 AM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

SAMPLED BY: STEVEN HEMSTREET/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		6/4/2020	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-4 60'-70'

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 5
 DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 12:00 PM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

SAMPLED BY: STEVEN HEMSTREET/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		6/4/2020	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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 LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL-1-27
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-4 70'-80'

GTA PROJECT NO: 060120-5
GTA SAMPLE NO: 6
DATE SAMPLED: 5/29/2020
TIME SAMPLED: 1:00 PM
DATE RECEIVED: 6/1/2020
TIME RECEIVED: 9:06 AM

SAMPLED BY: STEVEN HEMSTREET/OMPC

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		6/4/2020	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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LOD = LIMIT OF DETECTION

COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL-1-27
 MI
 SAMPLE MATRIX: WATER
 SAMPLE ID: MW-1D 60'-70'

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 7
 DATE SAMPLED: 5/28/2020
 TIME SAMPLED: 11:00 AM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

SAMPLED BY: STEVEN HEMSTREET/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		6/4/2020	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

COMPANY: BREITBURN OPERATING
PROJECT NO: 20-032
LOCATION: KAL-1-27
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-1D 69'-79'

GTA PROJECT NO: 060120-5
GTA SAMPLE NO: 8
DATE SAMPLED: 5/28/2020
TIME SAMPLED: 1:00 PM
DATE RECEIVED: 6/1/2020
TIME RECEIVED: 9:06 AM

SAMPLED BY: STEVEN HEMSTREET/OMPC

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		6/4/2020	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

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

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 1

DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 11:00 AM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

MI
 SAMPLED BY: STEVEN HEMSTREET/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-1	CHLORIDE EPA 300.0	3,500	500	mg/L (PPM)	LV	6/2/2020	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
MI
SAMPLED BY: STEVEN HEMSTREET/OMPC

GTA PROJECT NO: 060120-5
GTA SAMPLE NO: 2
DATE SAMPLED: 5/29/2020
TIME SAMPLED: 11:00 AM
DATE RECEIVED: 6/1/2020
TIME RECEIVED: 9:06 AM

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-2	CHLORIDE EPA 300.0	540	10	mg/L (PPM)	LV	6/2/2020	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: 060120-5
 GTA SAMPLE NO: 3

DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 11:00 AM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

MI
 SAMPLED BY: STEVEN HEMSTREET/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
SAMPLE ID: MW-3	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	6/2/2020	WATER

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 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: 060120-5
 GTA SAMPLE NO: 4

DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 8:30 AM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

MI
 SAMPLED BY: STEVEN HEMSTREET/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1D 84.5'-87' CHLORIDE EPA 300.0	87	10	mg/L (PPM)	LV	6/2/2020	WATER

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

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 5
 DATE SAMPLED: 5/29/2020
 TIME SAMPLED: 12:00 PM
 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

MI
 SAMPLED BY: STEVEN HEMSTREET/OMPC

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-4 60'-70' CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	6/2/2020	WATER

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL-1-27

GTA PROJECT NO: 060120-5
 GTA SAMPLE NO: 6

DATE SAMPLED: 5/29/2020
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 DATE RECEIVED: 6/1/2020
 TIME RECEIVED: 9:06 AM

MI
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SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-4 70'-80' CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	6/2/2020	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: 060120-5
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SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1D 60'-70' CHLORIDE EPA 300.0	4,900	500	mg/L (PPM)	LV	6/2/2020	WATER

ND = NOT DETECTED, RESULT < LOD
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COMPANY: BREITBURN OPERATING
 PROJECT NO: 20-032
 LOCATION: KAL-1-27

GTA PROJECT NO: 060120-5
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SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: MW-1D 69'-79' CHLORIDE EPA 300.0	11,000	1,000	mg/L (PPM)	LV	6/2/2020	WATER

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