



**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

[www.gtanalytical.com](http://www.gtanalytical.com)

Company: BREITBURN OPERATING  
Name:  
ClientProj: 00-038  
GTA ProjNo: 111219-9

Site Addr: DYAR 1-1

Sampled By: ROB WINTERER/OMPC  
Date Rec: 11/12/2019  
Time Rec: 4:30 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	OW-2	11/12/2019		WATER
2	OW-7	11/12/2019		WATER
3	OW-8	11/12/2019		WATER
4	OW-9	11/12/2019		WATER
5	OW-10	11/12/2019		WATER
6	OW-11	11/12/2019		WATER
7	OW-12	11/12/2019		WATER
8	OW-14	11/12/2019		WATER
9	OW-15	11/12/2019		WATER
10	OW-16	11/12/2019		WATER
11	OW-18	11/12/2019		WATER
12	OW-19	11/12/2019		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 L Chase*

Kirk L. Chase/Chemist  
Grand Traverse Analytical  
830 Robinwood Court  
Traverse City, MI 49686  
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COMPANY: BREITBURN OPERATING  
PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 1  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-2						
	CHLORIDE EPA 300.0	36	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	880	1.0	uS/cm@25C	LV	11/21/2019	WATER

ND = NOT DETECTED, RESULT < LOD  
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COMPANY: BREITBURN OPERATING  
PROJECT NO: 00-038  
LOCATION: DYAR 1-1

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 2  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 PM

MI  
SAMPLED BY: ROB WINTERER/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: OW-7						
	CHLORIDE EPA 300.0	360	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	1,700	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 3  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-8						
	CHLORIDE EPA 300.0	43	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	860	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 4  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-9						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	510	1.0	uS/cm@25C	LV	11/21/2019	WATER

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 PROJECT NO: 00-038  
 LOCATION: DYAR 1-1  
 MI  
 SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
 GTA SAMPLE NO: 5  
 DATE SAMPLED: 11/12/2019  
 TIME SAMPLED:  
 DATE RECEIVED: 11/12/2019  
 TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-10						
	CHLORIDE EPA 300.0	44	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	870	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 6  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-11						
	CHLORIDE EPA 300.0	230	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	1,500	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 7  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-12						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	580	1.0	uS/cm@25C	LV	11/21/2019	WATER

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COMPANY: BREITBURN OPERATING  
PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 8  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-14						
	CHLORIDE EPA 300.0	17	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	490	1.0	uS/cm@25C	LV	11/21/2019	WATER

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COMPANY: BREITBURN OPERATING  
PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 9  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-15						
	CHLORIDE EPA 300.0	16	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	610	1.0	uS/cm@25C	LV	11/21/2019	WATER

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COMPANY: BREITBURN OPERATING  
 PROJECT NO: 00-038  
 LOCATION: DYAR 1-1

GTA PROJECT NO: 111219-9  
 GTA SAMPLE NO: 10  
 DATE SAMPLED: 11/12/2019  
 TIME SAMPLED:  
 DATE RECEIVED: 11/12/2019  
 TIME RECEIVED: 4:30 PM

MI  
 SAMPLED BY: ROB WINTERER/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: OW-16						
	CHLORIDE EPA 300.0	16	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	480	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 11  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-18						
	CHLORIDE EPA 300.0	240	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	1,500	1.0	uS/cm@25C	LV	11/21/2019	WATER

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PROJECT NO: 00-038  
LOCATION: DYAR 1-1  
MI  
SAMPLED BY: ROB WINTERER/OMPC

GTA PROJECT NO: 111219-9  
GTA SAMPLE NO: 12  
DATE SAMPLED: 11/12/2019  
TIME SAMPLED:  
DATE RECEIVED: 11/12/2019  
TIME RECEIVED: 4:30 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 Matrix</u>
	SAMPLE ID: OW-19						
	CHLORIDE EPA 300.0	36	10	mg/L (PPM)	LV	11/21/2019	WATER
	CONDUCTIVITY SM2510-B	500	1.0	uS/cm@25C	LV	11/21/2019	WATER

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DISS = DISSOLVED

**CHAIN OF CUSTODY**

PROJECT NUMBER <b>00-038</b>	SITE NAME/ADDRESS <b>Dyar 1-1</b>	COMPANY/NAME <b>Breitburn</b>
SAMPLED BY <b>Rob Winterer</b>	COMPANY <b>OMPC</b>	GTA PROJECT # <b>11219-9</b>

**SAMPLE INFORMATION**

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	OW-2	11/12/19		water	chlorides, conductivity
2	OW-7	↓			↓
3	OW-8				
4	OW-9				
5	OW-10				
6	OW-11				
7	OW-12				
8	OW-14				
9	OW-15				
10	OW-16				
11	OW-18				
12	OW-19				

**BILL TO:**  
**Breitburn**

**REPORT TO:**  
**M. Coulter OMPC**

**RELEASED BY**      **DATE/TIME**  
**Robert White**      11/12/19 4:30pm

**RECEIVED BY**      **DATE/TIME**  
**[Signature]**      11/12/19 4:30

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