

Analytical Report

Report Summary

Client: Epic Energy

Samples Received: 7/19/2019

Job Number: 18012-0006

Work Order: P907064

Project Name/Location: Bradenheads

Report Reviewed By:



Date: 7/26/19

Walter Hinchman, Laboratory Director

NMOCB
AUG 19 2019
DISTRICT III



Envirotech Inc. certifies the test results meet all requirements of TNi unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, currently holds the appropriate and available Utah TNi certification NM009792018-1 for the data reported.



Epic Energy	Project Name:	Bradenheads	Reported: 07/26/19 14:04
7420 Main Street	Project Number:	18012-0006	
Farmington NM, 87402	Project Manager:	Vern Andrews	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
#1- Candado 2	P907064-01A	Aqueous	07/18/19	07/19/19	Poly 500mL

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Epic Energy 7420 Main Street Farmington NM, 87402	Project Name: Bradenheads Project Number: 18012-0006 Project Manager: Vern Andrews	Reported: 07/26/19 14:04
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**#1- Candado 2
P907064-01 (Water)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Wet Chem/Gravimetric

Total Dissolved Solids	649	10.0	mg/L	1	1929024	07/19/19	07/26/19	SM2540C	
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Dissolved Metals by 6010

Calcium	3.82	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Iron	ND	2.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Magnesium	ND	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Potassium	1.65	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Sodium	302	2.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Sodium Absorption Ratio	34.9		N/A	1	1930017	07/23/19	07/23/19	[CALC]	

Anions by 300.0/9056A

Chloride	6.35	2.00	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	
Fluoride	1.45	0.250	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	
Nitrate-N	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
Nitrite-N	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
o-Phosphate-P	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
Sulfate	469	2.00	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	

Wet Chemistry

Total Alkalinity (as CaCO3 at pH 4.5)	125	10.0	mg/L	1	1930034	07/25/19	07/25/19	SM2320B	
Specific Conductance (@ 25 C)	1290	10.0	uS/cm	1	1929036	07/19/19	07/19/19	9050A/2510 B	
pH @25°C	9.22		pH Units	1	1929037	07/19/19 13:01	07/19/19 16:35	9040C/4500 H+B	

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Wet Chem/Gravimetric - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1929024 - Wet Chemistry Preparation

Blank (1929024-BLK1)				Prepared: 07/17/19 1 Analyzed: 07/22/19 1						
Total Dissolved Solids	ND	10.0	mg/L							
LCS (1929024-BS1)				Prepared: 07/17/19 1 Analyzed: 07/22/19 1						
Total Dissolved Solids	96.0	10.0	mg/L	100		96.0	50-150			
Duplicate (1929024-DUP1)				Source: P907045-01 Prepared: 07/17/19 1 Analyzed: 07/22/19 1						
Total Dissolved Solids	6370	50.0	mg/L		6320			0.788	5	

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Dissolved Metals by 6010 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1930004 - Metals Water Hotblock Digestion EPA 3010A/200.2

Blank (1930004-BLK1)

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	ND	1.00	mg/L							
Iron	ND	2.00	"							
Magnesium	ND	1.00	"							
Potassium	ND	1.00	"							
Sodium	ND	2.00	"							

LCS (1930004-BS1)

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	52.9	1.00	mg/L	50.0		106	80-120			
Iron	105	2.00	"	100		105	80-120			
Magnesium	52.8	1.00	"	50.0		106	80-120			
Potassium	5.28	1.00	"	5.00		106	80-120			
Sodium	19.7	2.00	"	20.0		98.7	80-120			

Matrix Spike (1930004-MS1)

Source: P907064-01

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	56.2	1.00	mg/L	50.0	3.82	105	75-125			
Iron	104	2.00	"	100	ND	104	75-125			
Magnesium	52.4	1.00	"	50.0	ND	105	75-125			
Potassium	8.16	1.00	"	5.00	1.65	130	75-125			SPK1
Sodium	335	2.00	"	20.0	302	166	75-125			SPK2

Matrix Spike Dup (1930004-MSD1)

Source: P907064-01

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	56.4	1.00	mg/L	50.0	3.82	105	75-125	0.284	20	
Iron	105	2.00	"	100	ND	105	75-125	0.860	20	
Magnesium	53.6	1.00	"	50.0	ND	107	75-125	2.27	20	
Potassium	8.17	1.00	"	5.00	1.65	130	75-125	0.0245	20	SPK1
Sodium	339	2.00	"	20.0	302	181	75-125	0.920	20	SPK2

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Anions by 300.0/9056A - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1929038 - Anion Extraction EPA 300.0/9056A

Blank (1929038-BLK1)										
										Prepared & Analyzed: 07/19/19 1
Fluoride	ND	0.250	mg/L							
Chloride	ND	2.00	"							
Nitrite-N	ND	0.250	"							
Nitrate-N	ND	0.250	"							
o-Phosphate-P	ND	0.250	"							
Sulfate	ND	2.00	"							

LCS (1929038-BS1)										
										Prepared & Analyzed: 07/19/19 1
Fluoride	2.46	0.250	mg/L	2.50		98.5	90-110			
Chloride	26.7	2.00	"	25.0		107	90-110			
Nitrite-N	2.47	0.250	"	2.50		98.7	90-110			
Nitrate-N	2.51	0.250	"	2.50		100	90-110			
o-Phosphate-P	12.5	0.250	"	12.5		100	90-110			
Sulfate	25.5	2.00	"	25.0		102	90-110			

Matrix Spike (1929038-MS1)										
										Source: P907064-01
										Prepared & Analyzed: 07/19/19 1
Fluoride	4.00	0.250	mg/L	2.50	1.45	102	80-120			
Chloride	33.1	2.00	"	25.0	6.35	107	80-120			
Nitrite-N	2.50	0.250	"	2.50	ND	100	80-120			
Nitrate-N	2.53	0.250	"	2.50	ND	101	80-120			
o-Phosphate-P	12.6	0.250	"	12.5	ND	101	80-120			
Sulfate	469	2.00	"	25.0	469	0.180	80-120			SPK2

Matrix Spike Dup (1929038-MSD1)										
										Source: P907064-01
										Prepared & Analyzed: 07/19/19 1
Fluoride	3.97	0.250	mg/L	2.50	1.45	101	80-120	0.728	20	
Chloride	32.8	2.00	"	25.0	6.35	106	80-120	0.940	20	
Nitrite-N	2.48	0.250	"	2.50	ND	99.0	80-120	0.925	20	
Nitrate-N	2.58	0.250	"	2.50	ND	103	80-120	2.00	20	
o-Phosphate-P	12.4	0.250	"	12.5	ND	99.6	80-120	1.32	20	
Sulfate	472	2.00	"	25.0	469	11.2	80-120	0.587	20	SPK2

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7420 Main Street	Project Number:	18012-0006	Reported:
Farmington NM, 87402	Project Manager:	Vern Andrews	07/26/19 14:04

Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1929036 - Wet Chemistry Preparation

Blank (1929036-BLK1)		Prepared & Analyzed: 07/19/19 1								
Specific Conductance (@ 25 C)	ND	10.0	uS/cm							
LCS (1929036-BS1)		Prepared & Analyzed: 07/19/19 1								
Specific Conductance (@ 25 C)	1410	10.0	uS/cm	1410		99.7	98-102			
Duplicate (1929036-DUP1)		Source: P907064-01		Prepared & Analyzed: 07/19/19 1						
Specific Conductance (@ 25 C)	1290	10.0	uS/cm	1290				0.0775	20	

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Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1929037 - Wet Chemistry Preparation

LCS (1929037-BS1)					Prepared & Analyzed: 07/19/19 1					
pH	7.99		pH Units	8.00		99.9	98.75-101.25			
Duplicate (1929037-DUP1)					Source: P907064-01 Prepared & Analyzed: 07/19/19 1					
pH	9.24		pH Units	9.22				0.217	20	

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Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1930034 - Wet Chemistry Preparation

LCS (1930034-BS1)				Prepared & Analyzed: 07/25/19 1						
Total Alkalinity (as CaCO3 at pH 4.5)	252	10.0	mg/L	250		101	70-130			
Duplicate (1930034-DUP1)				Source: P907064-01 Prepared & Analyzed: 07/25/19 1						
Total Alkalinity (as CaCO3 at pH 4.5)	152	10.0	mg/L		125			19.5	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Notes and Definitions

- SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
- SPK1 The spike recovery is outside of quality control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- ** Methods marked with ** are non-accredited methods.

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