



333 Main Street Shelby, Montana 59474 / P.O. Box 10640 Bozeman, MT 59179

(406) 460-0903

TO: Jim Griswold, OCD

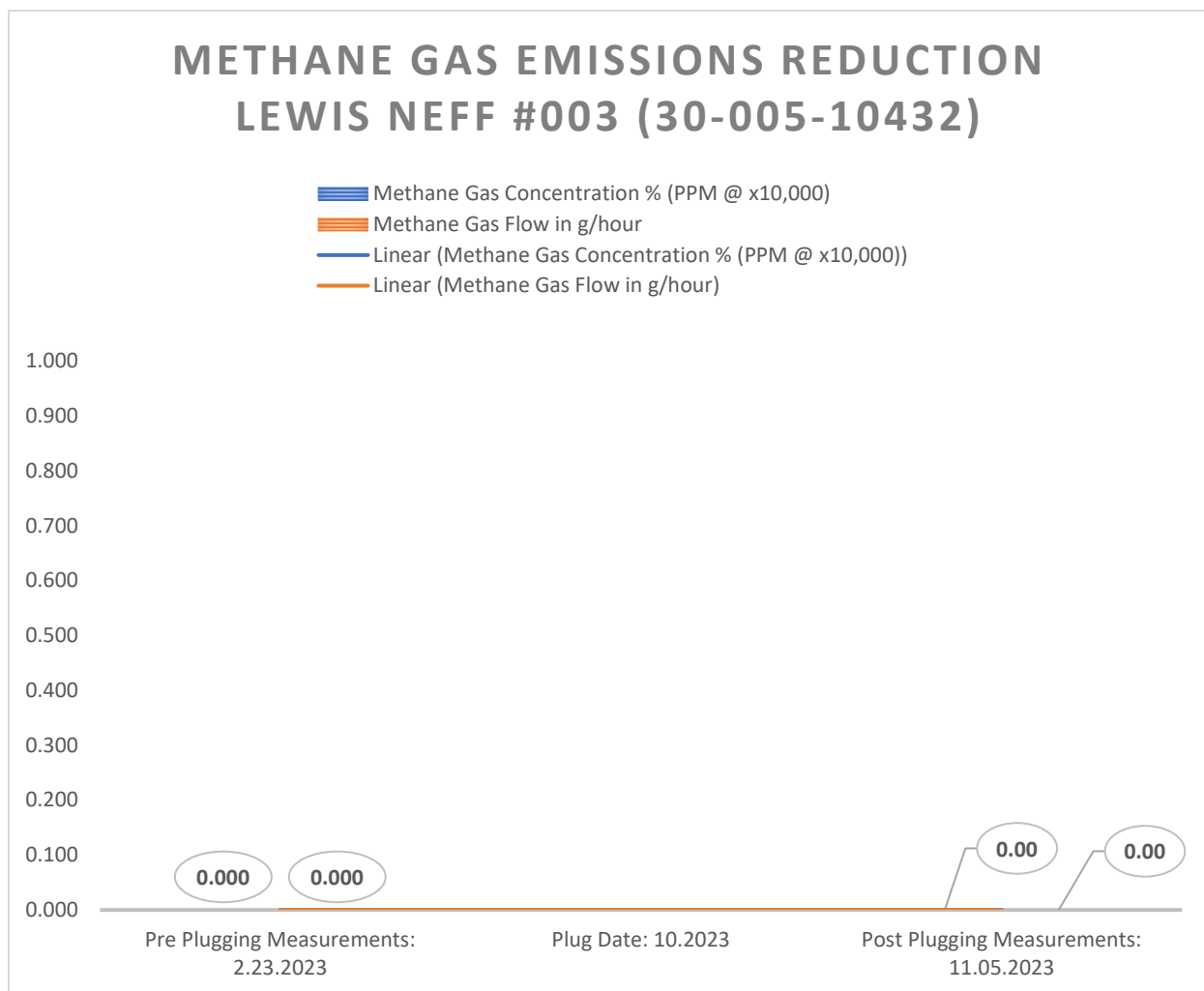
FROM: Curtis Shuck, WDNM

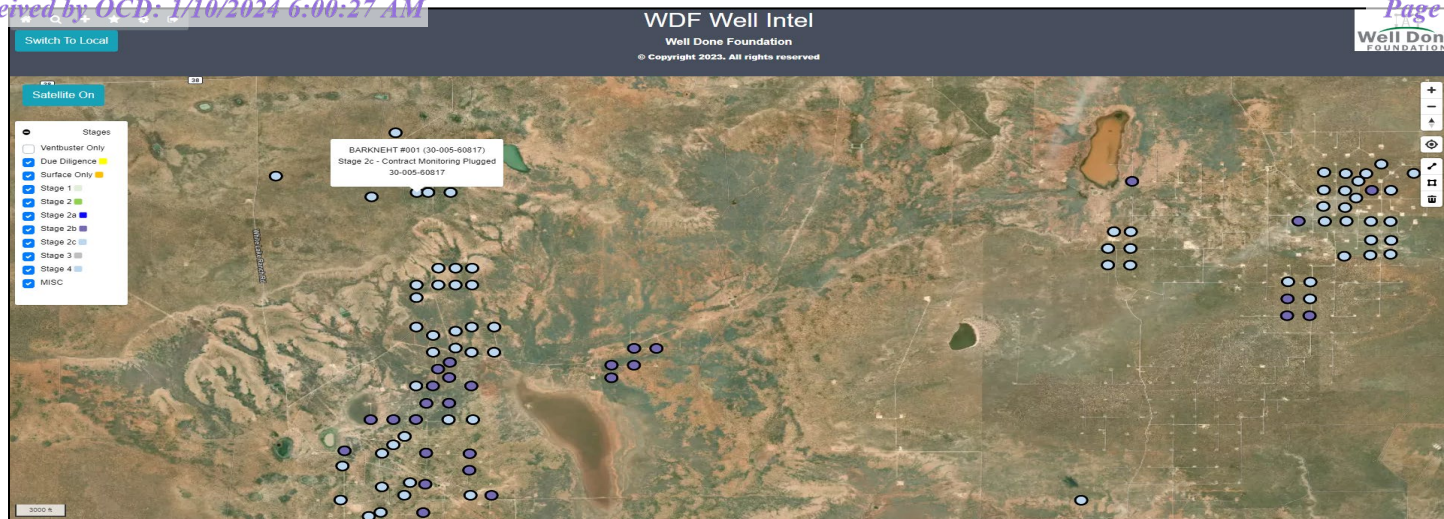
DATE: December 31, 2023

RE: Barkneht #001 (30-005-60813) Post Plugging Methane Emission Reduction Report

### MEMORANDUM


Well Done New Mexico LLC performed Post Plugging Orphan Well Methane Emission Testing, Gas Sampling & Analysis on the Barkneht #001 (30-005-60813) on November 5, 2023. The following are the conclusions:





## C6+ Gas Analysis Report

November 05, 2023

 <b>LABORATORY SERVICES</b> <small>ANALYTICAL SERVICES</small>	<a href="http://www.labpartners.com">www.labpartners.com</a> 575.397.3713 3020 W My Markand • H9086 MB 86240			C6+ Gas Analysis Report
	<b>Barkneht 001 POST PLUG</b>			<b>Barkneht 001</b>
19056G	Sample Point Code			Sample Point Name
<hr/>				
Laboratory Services	2023078640	NA	CES - Spot	
Source Laboratory	Lab File No	Container Identity	Sampler	
USA	USA	USA	New Mexico	
District	Area Name	Field Name	Facility Name	
Nov 5, 2023 17:00	Nov 5, 2023 17:00	Nov 6, 2023 10:43	Nov 20, 2023	
Date Sampled	Date Effective	Date Received	Date Reported	
<hr/>				
System Administrator				
<hr/>				
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions	
<hr/>				
Well Down Foundation			NG	
Operator			Lab Source Description	

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	99.9190	99.918	
CO2 (CO2)	0.0400	0.04	
Methane (C1)	0.0000	0	
Ethane (C2)	0.0000	0	0.0000
Propane (C3)	0.0000	0	0.0000
I-Butane (IC4)	0.0000	0	0.0000
N-Butane (NC4)	0.0000	0	0.0000
I-Pentane (ICS)	0.0000	0	0.0000
N-Pentane (NC5)	0.0000	0	0.0000
Hexanes Plus (C6+)	0.0410	0.041	0.0180
TOTAL	100.0000	99.9990	0.0180

Gross Heating Values (Real, BTU/R <sup>3</sup> )			
14.696 PSI @ 60.00 A°F		14.73 PSI @ 60.00 A°F	
Dry	Saturated	Dry	Saturated
2.1	2.9	2.1	2.9

Calculated Total Sample Properties	
GPA2145-16 *Calculated at Contract Conditions	
Relative Density Real	Relative Density Ideal
0.9682	0.9683
Molecular Weight	
28.0465	

C6+ Group Properties		
Assumed Composition		
C6 - 60.000%	C7 - 30.000%	C8 - 10.000%

Field H2S
0 PPM

PROTREND STATUS:	DATA SOURCE:
Passed By Validator on Nov 22, 2023	Imported

Method(s): Gas C6+ - GPA 2261, Extended Gas - GPA 2285, Calculations - GPA 2172

Analyzer Information			
Device Type:	Gas Chromatograph	Device Make:	Shimadzu
Device Model:	GC-2014	Last Cal Date:	Nov 20, 2023

**PROTREND STATUS:** Passed By Validator on Nov 22, 2023

**PASSED BY VALIDATOR REASON:**  
Close enough to be considered reasonable





**VALIDATOR:**  
Ashley Russell

**VALIDATOR COMMENTS:**

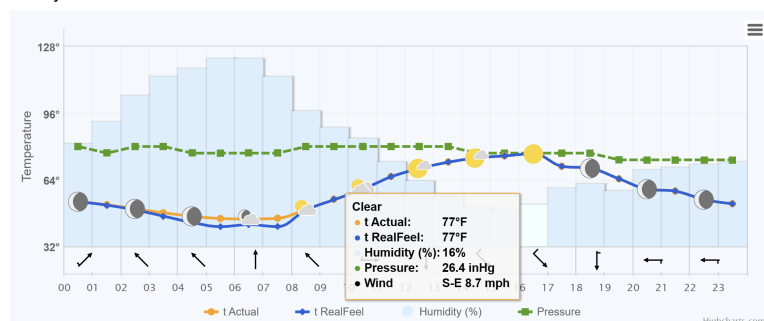
**DATA SOURCE:**  
Imported

le.

2.

Atmospheric conditions and temperature °F	RealFeel °F	Atmospheric pressure inHg	Wind speed mph	Humidity
 <b>+52°</b>	+52°	26.4	▼ N 6.3	47%
 <b>+45°</b>	+41°	26.4	▲ NW 4.3	64%
 <b>+73°</b>	+73°	26.5	▼ SE 7.2	19%
 <b>+64°</b>	+64°	26.3	▼ SW 5.1	21%

## Hourly forecast for 05.11.2023





www.permianls.com  
575.397.3713 2609 W Marland Hobbs NM 88240

## C6+ Gas Analysis Report

19056G	Barkneht 001 POST PLUG	Barkneht 001	
Sample Point Code	Sample Point Name	Sample Point Location	
Laboratory Services	2023078640	NA	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Nov 5, 2023 17:00	Nov 5, 2023 17:00	Nov 6, 2023 10:43	Nov 20, 2023
Date Sampled	Date Effective	Date Received	Date Reported
System Administrator			
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
Well Done Foundation		NG	
Operator		Lab Source Description	

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Propane (C3)	0.0000	0	0.0000
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I-Pentane (IC5)	0.0000	0	0.0000
N-Pentane (NC5)	0.0000	0	0.0000
Hexanes Plus (C6+)	0.0410	0.041	0.0180
TOTAL	100.0000	99.9990	0.0180

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Field H2S  
0 PPM

## PROTREND STATUS:

Passed By Validator on Nov 22, 2023

## DATA SOURCE:

Imported

## PASSED BY VALIDATOR REASON:

Close enough to be considered reasonable.

## VALIDATOR:

Ashley Russell

## VALIDATOR COMMENTS:

OK

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

DEFINITIONS

Action 301897

DEFINITIONS

Operator: CANYON E & P COMPANY 251 O'Connor Ridge Blvd. Irving, TX 75038	OGRID: 269864
	Action Number: 301897
	Action Type: [UF-OMA] Post-Plug Methane Monitoring (UF-OMA-MMB)

DEFINITIONS

The Orphan Well Mitigation Activity (OMA) forms are a subset of the OCD's forms exclusively designed for activities related to State of New Mexico's contracted plugging and reclamation activities. Specifically, these forms are used for orphan wells or associated facilities which are in a "Reclamation Fund Approved" status. This status represents wells or facilities where the OCD has acquired a hearing order allowing the OCD to perform plugging or reclamation on wells and associated facilities that no longer have a viable operator to perform the necessary work. These forms are not to be utilized for any other purpose.



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QUESTIONS

Action 301897

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Operator: CANYON E & P COMPANY 251 O'Connor Ridge Blvd. Irving, TX 75038	OGRID: 269864
	Action Number: 301897
	Action Type: [UF-OMA] Post-Plug Methane Monitoring (UF-OMA-MMB)

QUESTIONS

<b>Prerequisites</b>	
[OGRID] Well Operator	[269864] CANYON E & P COMPANY
[API] Well Name and Number	[30-005-60817] BARKNEHT #001
Well Status	Plugged (not released)

<b>Monitoring Event Information</b>	
<i>Please answer all the questions in this group.</i>	
Reason For Filing	Post-Plug Methane Monitoring
Date of monitoring	11/05/2023
Latitude	33.63362
Longitude	-104.03390

<b>Monitoring Event Details</b>	
<i>Please answer all the questions in this group.</i>	
Flow rate in cubic meters per day (m³/day)	0.00
Test duration in hours (hr)	1.0
Average flow temperature in degrees Celsius (°C)	23.0
Average gauge flow pressure in kilopascals (kPag)	0.0
Methane concentration in part per million (ppm)	0
Methane emission rate in grams per hour (g/hr)	0.00
Testing Method	Steady State

<b>Monitoring Contractor</b>	
<i>Please answer all the questions in this group.</i>	
Name of monitoring contractor	Well Done New Mexico LLC