



## Pre Plugging Methane Quantification Test Report

Report Prepared By Curtis Shuck

**Start Date:** Sat Nov 30 2024 22:40:03 GMT+0000  
 (Coordinated Universal Time)  
**End Date:** Sun Dec 01 2024 19:03:42 GMT+0000  
 (Coordinated Universal Time)  
**Test Time Subset:** 2024-11-30T22:39:38.745Z -  
 2024-12-01T19:02:26.160Z  
**Device:** VB100-0054  
**Well Licensee:** NMOCD  
**Well Name:** Helena 25 Fee com 001  
**UWI:** 30-015-31909  
**Well License Number:** 30-015-31909  
**Surface Location:** Quality Transport  
**Bottom Hole Location:** Unknown  
**Test Operator:** CES QMS  
**Authorized By:** NMOCD  
**Test Reason:** IIJA / BIL Pre Plug  
**Scope Of Work:** 2- hour normalized flow  
**AFE Number:** 78655  
**GPS:** 32.45477,-104.14839  
**Notes:** 2 tubing valve

### Orphan Well Flow Test Results

Average Flowrate <b>1.0971</b> scf/hr	Average Flow Temperature <b>45.75</b> °F	Average Flow Pressure <b>0.8413</b> psi	Flow Duration <b>1222.79</b> min	Methane Concentration <b>10.21</b> %	Methane Emissions <b>2.15</b> g/hr	Benzene <b>1</b> ppm
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Annual Emission Rate = ( $\bar{Q}_{measured}$ ) x (Conc $measured$ ) x  $p$  x 0.454 x 8,760

#### Methane Calculation:

$(\bar{Q}_{measured})$  1.0971 scf/hr x (Conc $measured$ ) 0.1021 = 0.11200987 scf CH4/hr  
 Methane Flow x ( $p$ ) x .0423 x .454 x 8,760 = 18.834 CH4 kg/yr Emission Rate

#### Where:

$Q_{measured}$  - scf/hr total measured flow

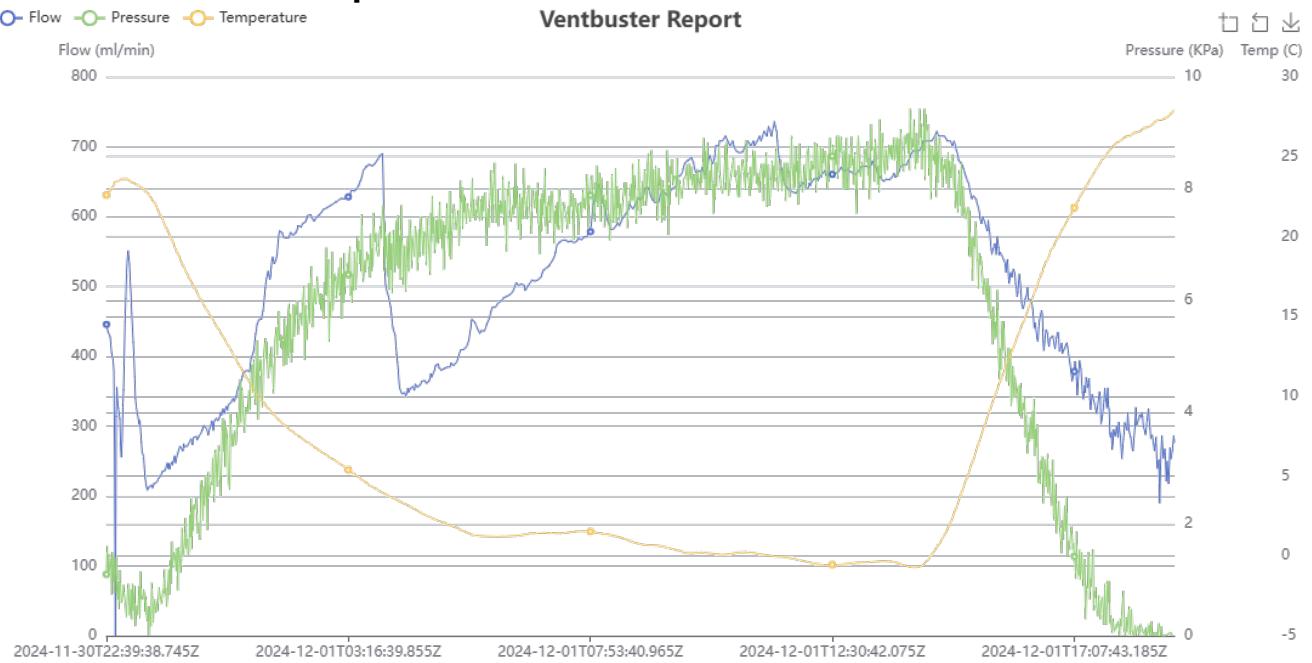
Conc $measured$  - methane concentration measured

$p$  - 0.0423 methane density at 1 atm; 60° F

0.454 - Conversion from lb to kg

8760 - Conversion from hr to yr

## Flow/Pressure/Temperature Timeseries



## Site Photos



23013G

Helena 25 #001 Pre Plug

Helena 25 #001 Pre Plug

Sample Point Code

Sample Point Name

Sample Point Location

Laboratory Services	2024102451	BAG	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Nov 30, 2024 15:50	Nov 1, 2024	Dec 5, 2024 15:41	Dec 6, 2024
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 Montana

NG

Operator

Lab Source Description

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	88.0970	88.098	
CO2 (CO2)	0.1420	0.142	
Methane (C1)	10.2090	10.209	
Ethane (C2)	0.5090	0.509	0.1360
Propane (C3)	0.2930	0.293	0.0810
I-Butane (IC4)	0.1170	0.117	0.0380
N-Butane (NC4)	0.1760	0.176	0.0550
I-Pentane (IC5)	0.1120	0.112	0.0410
N-Pentane (NC5)	0.0670	0.067	0.0240
Hexanes Plus (C6+)	0.2780	0.278	0.1210
<b>TOTAL</b>	<b>100.0000</b>	<b>100.0010</b>	<b>0.4960</b>

Method(s): Gas C6+ - GPA 2261, Extended Gas - GPA 2286, Calculations - GPA 2172

Gross Heating Values (Real, BTU/ft³)			
14.696 PSI @ 60.00 °F		14.73 PSI @ 60.00 °F	
Dry	Saturated	Dry	Saturated
151.0	149.3	151.3	149.6
Calculated Total Sample Properties			
GPA2145-16 *Calculated at Contract Conditions			
Relative Density Real		Relative Density Ideal	
0.9399		0.9398	
Molecular Weight		27.2200	
C6+ Group Properties			
Assumed Composition		C6 - 60.0000% C7 - 30.000% C8 - 10.000%	

**PROTREND STATUS:**

Passed By Validator on Dec 9, 2024

**DATA SOURCE:**

Imported

**PASSED BY VALIDATOR REASON:**

First sample taken @ this point, composition looks reasonable

**VALIDATOR:**

Ashley Russell

**VALIDATOR COMMENTS:**

OK

Analyzer Information			
Device Type:	Gas Chromatograph	Device Make:	Shimadzu
Device Model:	GC-2014	Last Cal Date:	Sep 9, 2024

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

DEFINITIONS

Action 522479

**DEFINITIONS**

Operator:	OGRID:
Well Done New Mexico LLC (OPG Vendor) 333 Main St Shelby, MT 59474	333567
	Action Number: 522479
	Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

**DEFINITIONS**

The OCD Mitigation Activity (OMA) forms are a subset of the OCD's forms exclusively designed for activities related to State of New Mexico's contracted evaluation, plugging, decommissioning, remediation, salvage and reclamation activities. Specifically, these forms are typically used where the OCD has acquired a hearing order allowing the OCD to perform mitigation activities on wells and associated facilities that no longer have an authorized or viable operator to perform the necessary work. These forms are not to be utilized for any other purpose.

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QUESTIONS

Action 522479

**QUESTIONS**

Operator: Well Done New Mexico LLC (OPG Vendor) 333 Main St Shelby, MT 59474	OGRID: 333567 Action Number: 522479 Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)
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**QUESTIONS**

<b>Prerequisites</b>	
[OGRID] Well Operator	[262232] QUALITY TRANSPORT, INC.
[API] Well Name and Number	[30-015-31909] HELENA 25 FEE COM #001
Well Status	Reclamation Fund Approved

**Monitoring Event Information***Please answer all the questions in this group.*

Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	11/30/2024
Latitude	32.4547386
Longitude	-104.1483536

**Monitoring Event Details***Please answer all the questions in this group.*

Flow rate in cubic meters per day (m <sup>3</sup> /day)	129.60
Test duration in hours (hr)	0.4
Average flow temperature in degrees Celsius (°C)	21.7
Average gauge flow pressure in kilopascals (kPag)	1.0
Methane concentration in part per million (ppm)	102,090
Methane emission rate in grams per hour (g/hr)	3,661.00
Testing Method	Steady State

**Monitoring Contractor***Please answer all the questions in this group.*

Name of monitoring contractor	WELL DONE NEW MEXICO LLC
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