



Pre Plugging Methane Quantification Test Report

Report Prepared By Curtis Shuck

Start Date: Sun Jan 28 2024 23:56:49 GMT+0000
 (Coordinated Universal Time)
End Date: Mon Jan 29 2024 20:10:03 GMT+0000
 (Coordinated Universal Time)
Test Time Subset: 2024-01-28T23:56:53.225Z -
 2024-01-29T20:07:35.012Z
Device: VB100-0070
Well Licensee: NMOCD
Well Name: Mobil King 001
UWI: 30-025-09333
Well License Number: Unknown
Surface Location: Unknown
Bottom Hole Location: Unknown
Test Operator: ces QMS
Authorized By: NMOCD
Test Reason: IJJA PRE PLUG
Scope Of Work: 12- hour
AFE Number: LEA24.001
GPS: 32.31443,-103.21792
Notes: H2S 1100 ppm

Orphan Well Flow Test Results

Average Flowrate	Average Flow Temperature	Average Flow Pressure	Flow Duration	Methane Concentration	Methane Emissions	Benzene
5.1195 scf/hr	52.62 °F	0.4167 psi	1210.7 min	69 %	67.84 g/hr	1 ppm

Annual Emission Rate = ($\bar{x}Q_{measured}$) x (Conc_{measured}) x p x 0.454 x 8,760

Methane Calculation:

($\bar{x}Q_{measured}$) 5.1195 scf/hr x (Conc_{measured}) 0.69 = 3.53242096 scf CH₄/hr

Methane Flow x (p) x .0423 x .454 x 8,760 = 594.2784 CH₄ kg/yr Emission Rate

Where:

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

Conc_{measured} - methane concentration measured

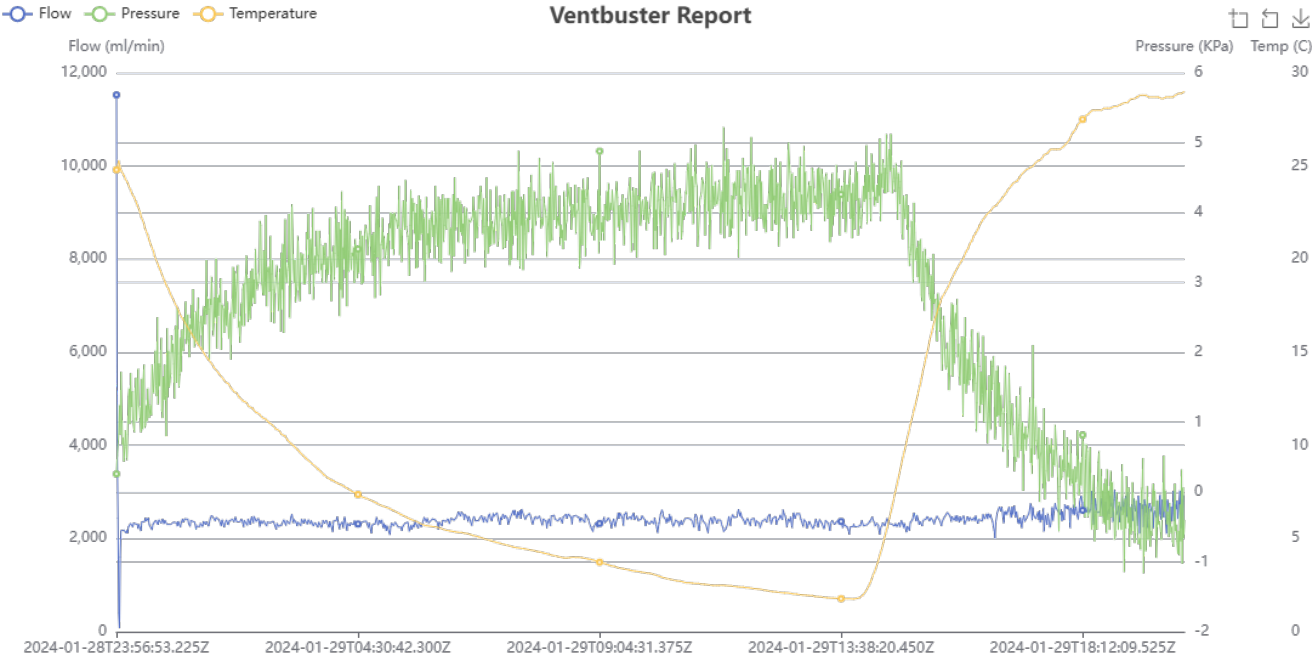
p - 0.0423 methane density at 1 atm; 60° F

0.454 - Conversion from lb to kg

8760 - Conversion from hr to yr

Flow/Pressure/Temperature Timeseries

Ventbuster Report



Site Photos



20068G	MOBILE KING #001 PRE PLUG	MOBILE KING #001 PRE PLUG	
Sample Point Code	Sample Point Name	Sample Point Location	
Laboratory Services	2024084092	BAG	CES - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Jan 28, 2024 17:00	Jan 1, 2024	Feb 1, 2024 15:08	Feb 5, 2024
Date Sampled	Date Effective	Date Received	Date Reported
Luis			
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
Well Done Foundation		NG	
Operator		Lab Source Description	

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.1100	0.11	
Nitrogen (N2)	14.7120	14.72821	
CO2 (CO2)	0.4850	0.48512	
Methane (C1)	68.6110	68.68783	
Ethane (C2)	8.3800	8.3892	2.2410
Propane (C3)	3.9370	3.94123	1.0840
I-Butane (IC4)	0.5580	0.55864	0.1830
N-Butane (NC4)	1.2710	1.27232	0.4010
I-Pentane (IC5)	0.4740	0.47427	0.1730
N-Pentane (NC5)	0.4050	0.40525	0.1470
Hexanes Plus (C6+)	1.0570	1.05793	0.4590
TOTAL	100.0000	100.1100	4.6880

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

Analyzer Information			
Device Type:	Gas Chromatograph	Device Make:	Shimadzu
Device Model:	GC-2014	Last Cal Date:	Jan 29, 2024

Gross Heating Values (Real, BTU/ft³)			
14.696 PSI @ 60.00 Å°F	14.73 PSI @ 60.00 Å°F		
Dry	Saturated	Dry	Saturated
1,093.9	1,076.2	1,096.4	1,078.7

Calculated Total Sample Properties	
GPA2145-16 *Calculated at Contract Conditions	
Relative Density Real	Relative Density Ideal
0.7725	0.7705
Molecular Weight	
22.3173	

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

Field H2S
1100 PPM

PROTREND STATUS:
 Passed By Validator on Feb 6, 2024

DATA SOURCE:
 Imported

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

VALIDATOR:
 Ashley Russell

VALIDATOR COMMENTS:
 OK

Source	Date	Notes
Ashley Russell	Feb 6, 2024 8:58 am	METHANE 686,880

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 522172

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Operator: Well Done New Mexico LLC (OPG Vendor) 333 Main St Shelby, MT 59474	OGRID: 333567
	Action Number: 522172
	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

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QUESTIONS

Prerequisites	
[OGRID] Well Operator	[142624] ROCA PRODUCTION INC.
[API] Well Name and Number	[30-025-09333] MOBIL KING #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	01/28/2024
Latitude	32.3144035
Longitude	-103.2177277

Monitoring Event Details	
Please answer all the questions in this group.	
Flow rate in cubic meters per day (m³/day)	3.36
Test duration in hours (hr)	20.2
Average flow temperature in degrees Celsius (°C)	11.5
Average gauge flow pressure in kilopascals (kPag)	2.8
Methane concentration in part per million (ppm)	686,880
Methane emission rate in grams per hour (g/hr)	98.30
Testing Method	Steady State

Monitoring Contractor	
Please answer all the questions in this group.	
Name of monitoring contractor	WELL DONE NEW MEXICO LLC