



Certificate of Analysis

Number: 6030-21100297-012A

Artesia Laboratory

200 E Main St.
Artesia, NM 88210
Phone 575-746-3481Zach LaCount
Mewbourne Oil Company
4801 Business Park Blvd
Hobbs, NM 88240

Nov. 04, 2021

Station Name: Armstrong 26/23 Battery

Station Number: N/A

Station Location: Mewbourne

Sample Point: VRT

Instrument: 6030_GC2 (Agilent GC-7890B)

Last Inst. Cal.: 09/13/2021 15:05 PM

Analyzed: 11/02/2021 08:31:19 by EJH

Sampled By: James Hill

Sample Of: Gas Spot

Sample Date: 10/27/2021 04:53

Sample Conditions: 5 psig Ambient: 70 °F

Effective Date: 10/27/2021 04:53

Method: GPA 2286

Cylinder No: 1111-001228

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+ 4.894
Nitrogen	84.030	85.05800	72.271		GPM TOTAL C3+ 4.500
Methane	0.000	0.00000	0.000		GPM TOTAL iC5+ 2.033
Carbon Dioxide	0.091	0.09200	0.123		
Ethane	1.458	1.47600	1.346	0.394	
Propane	3.108	3.14600	4.208	0.866	
Iso-butane	1.240	1.25500	2.212	0.410	
n-Butane	3.735	3.78100	6.666	1.191	
Iso-pentane	1.258	1.27300	2.786	0.465	
n-Pentane	1.506	1.52400	3.335	0.552	
Hexanes Plus	2.366	2.39500	7.053	1.016	
	98.792	100.00000	100.000	4.894	

Calculated Physical Properties

	Total	C6+
Relative Density Real Gas	1.1397	3.3374
Calculated Molecular Weight	32.97	96.66
Compressibility Factor	0.9982	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.696 psia & 60°F

Real Gas Dry BTU	507	5207
Water Sat. Gas Base BTU	498	5117
Ideal, Gross HV - Dry at 14.696 psia	506.2	5207.4
Ideal, Gross HV - Wet	497.3	0.000

Comments: H2S Field Content 0 ppm

Data reviewed by: Krystle Fitzwater, Laboratory Manager

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



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Nov. 04, 2021

Station Name: Armstrong 26/23 Battery
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRT
Analyzed: 11/03/2021 06:56:47 by EJRSampled By: James Hill
Sample Of: Gas Spot
Sample Date: 10/27/2021 04:53
Sample Conditions: 5 psig
Method: GPA 2286
Cylinder No: 1111-001228

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia
Hydrogen Sulfide	0.000	0.000	
Nitrogen	85.058	72.271	
Methane	0.000	0.000	
Carbon Dioxide	0.092	0.123	
Ethane	1.476	1.346	0.394
Propane	3.146	4.208	0.866
Iso-Butane	1.255	2.212	0.410
n-Butane	3.781	6.666	1.191
Iso-Pentane	1.273	2.786	0.465
n-Pentane	1.524	3.335	0.552
i-Hexanes	0.401	1.022	0.161
n-Hexane	0.293	0.774	0.121
Benzene	0.028	0.064	0.008
Cyclohexane	0.172	0.440	0.059
i-Heptanes	0.408	1.173	0.170
n-Heptane	0.198	0.605	0.091
Toluene	0.072	0.202	0.024
i-Octanes	0.584	1.884	0.264
n-Octane	0.070	0.244	0.036
Ethylbenzene	0.002	0.007	0.001
Xylenes	0.039	0.130	0.015
i-Nonanes	0.112	0.406	0.056
n-Nonane	0.012	0.044	0.007
Decanes Plus	0.004	0.058	0.003
	100.000	100.000	4.894



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Station Name: Armstrong 26/23 Battery
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRT
Analyzed: 11/03/2021 06:56:47 by EJRSampled By: James Hill
Sample Of: Gas Spot
Sample Date: 10/27/2021 04:53
Sample Conditions: 5 psig
Method: GPA 2286
Cylinder No: 1111-001228

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	32.97	149.30
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	507.1	8130.9
Water Sat. Gas Base BTU	498.3	7974.3
Relative Density Real Gas	1.1397	5.1548
Compressibility Factor	0.9982	
Ideal, Gross HV - Wet	497.3	
Ideal, Gross HV - Dry at 14.696 psia	506.2	
Net BTU Dry Gas - real gas	468	
Net BTU Wet Gas - real gas	460	

Comments: H2S Field Content 0 ppm

Data reviewed by: Krystle Fitzwater, Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Mewbourne Oil Company

Natural Gas Flared Calculation Methodology

Metering low-pressure gas diverted from the Vapor Recovery Unit ("VRU") to backup flare is not technologically feasible. Gas volumes for VRU downtime events will be calculated using an average metered VRU gas to oil production ratio. This GOR is derived from available relevant data.

Average Metered VRU Gas to Oil Production GOR = 0.18 Mcf/BBL

Flared gas volume = GOR * Oil Production Volume (BBL)

District I1625 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

QUESTIONS

Action 61426

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 61426
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS**Prerequisites**

Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.

Incident Well	Not answered.
Incident Facility	[fAPP2124552935] ARMSTRONG 26/23 BATTERY

Determination of Reporting Requirements

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.

Was or is this venting and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a venting and/or flaring event	Yes, minor venting and/or flaring of natural gas.
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.	
Was there or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/or flaring result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the venting and/or flaring within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved

Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	VRU

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	0
Nitrogen (N2) percentage, if greater than one percent	84
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0

If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.

Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

Date(s) and Time(s)

Date venting and/or flaring was discovered or commenced	11/01/2021
Time venting and/or flaring was discovered or commenced	09:00 AM
Time venting and/or flaring was terminated	11:59 PM
Cumulative hours during this event	15

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: Equipment Failure Other (Specify) Natural Gas Flared Released: 111 Mcf Recovered: 0 Mcf Lost: 111 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Volume calculated
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity

Was or is this venting and/or flaring a result of downstream activity	Not answered.
Was notification of downstream activity received by you or your operator	Not answered.
Downstream OGRID that should have notified you or your operator	Not answered.
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/or flaring	Not answered.

Steps and Actions to Prevent Waste

For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your operator's control	VRU malfunctioned
Steps taken to limit the duration and magnitude of venting and/or flaring	Repaired VRU
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Continued routine preventive maintenance and daily operational inspections

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CONDITIONS

Action 61426

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 61426
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
zlacount	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	11/12/2021