



Certificate of Analysis

Number: 5030-21080736-001A

Midland Laboratory

2200 East I-20

Midland, TX 79706

Phone 432-689-7252

Station Name: LOVE SHACK SALES CHECK

Method: GPA 2286

Cylinder No: 5030-01380

Analyzed: 09/02/2021 17:07:18 by ARP

Sep. 03, 2021

Sampled By: BRIAN PLOWMAN

Sample Of: Gas Spot

Sample Date: 08/28/2021 13:50

Sample Conditions: 160 psig, @ 119 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+ 8.461
Nitrogen	1.370	1.547		GPM TOTAL C3+ 4.943
Carbon Dioxide	2.175	3.858		GPM TOTAL iC5+ 1.062
Methane	67.173	43.431		
Ethane	13.123	15.904	3.518	
Propane	8.570	15.231	2.367	
Iso-butane	1.287	3.015	0.422	
n-Butane	3.454	8.091	1.092	
Iso-pentane	0.892	2.594	0.327	
n-Pentane	0.935	2.719	0.340	
Hexanes Plus	1.011	3.596	0.395	
	100.000	100.000	8.461	

Calculated Physical Properties

	Total	C6+
Relative Density Real Gas	0.8604	3.0269
Calculated Molecular Weight	24.81	87.67
Compressibility Factor	0.9950	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1409	4736
Water Sat. Gas Base BTU	1384	4654

Comments: H2S Field Content 100 ppm

Data reviewed by: Marco Barrientos

Quality Assurance:

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



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Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+
Nitrogen	1.370	1.547		GPM TOTAL C3+
Methane	67.173	43.431		GPM TOTAL iC5+
Carbon Dioxide	2.175	3.858		
Ethane	13.123	15.904	3.518	
Propane	8.570	15.231	2.367	
Iso-Butane	1.287	3.015	0.422	
n-Butane	3.454	8.091	1.092	
Iso-Pentane	0.892	2.594	0.327	
n-Pentane	0.935	2.719	0.340	
Hexanes	0.536	1.808	0.210	
Heptanes Plus	0.475	1.788	0.185	
	100.000	100.000	8.461	

Calculated Physical Properties

	Total	C7+
Relative Density Real Gas	0.8604	3.2052
Calculated Molecular Weight	24.81	92.83
Compressibility Factor	0.9950	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1409.0	4932.0
Water Sat. Gas Base BTU	1384.4	4846.0

Comments: H2S Field Content 100 ppm

Data reviewed by: Marco Barrientos

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Sample Of: Gas Spot

Sample Date: 08/28/2021 13:50

Sample Conditions: 160 psig, @ 119 °F

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.010	0.014		GPM TOTAL C2+ 8.461
Nitrogen	1.370	1.547		
Carbon Dioxide	2.175	3.858		
Methane	67.173	43.431		
Ethane	13.123	15.904	3.518	
Propane	8.570	15.231	2.367	
Iso-Butane	1.287	3.015	0.422	
n-Butane	3.454	8.091	1.092	
Iso-Pentane	0.892	2.594	0.327	
n-Pentane	0.935	2.719	0.340	
i-Hexanes	0.346	1.131	0.130	
n-Hexane	0.190	0.677	0.080	
Benzene	0.025	0.079	0.007	
Cyclohexane	0.088	0.301	0.030	
i-Heptanes	0.209	0.775	0.083	
n-Heptane	0.036	0.144	0.017	
Toluene	0.018	0.065	0.006	
i-Octanes	0.088	0.358	0.037	
n-Octane	0.006	0.027	0.003	
Ethylbenzene	0.001	0.002	0.000	
Xylenes	0.002	0.007	0.001	
i-Nonanes	0.002	0.022	0.001	
n-Nonane	0.000	0.002	0.000	
Decane Plus	0.000	0.006	0.000	
	100.000	100.000	8.461	

Calculated Physical Properties

	Total	C10+
Relative Density Real Gas	0.8604	0.0000
Calculated Molecular Weight	24.81	0.00
Compressibility Factor	0.9950	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1409.0	0.000
Water Sat. Gas Base BTU	1384.4	0.000

Comments: H2S Field Content 100 ppm

Data reviewed by: Marco Barrientos

Quality Assurance:

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FLARING SUMMARY

Battery	Date	Total Flare Vol (mcf)	Hrs Flared	Start		End	
Love Shack CTB 17S	08/18/2021	2979	23	08/18/2021	1800	08/19/2021	1700

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

QUESTIONS

Action 46508

QUESTIONS

Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986
	Action Number: 46508
	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	[30-025-48401] LOVE SHACK FEDERAL COM #111H
Incident Facility	Not answered.

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 notification of a major venting and/or flaring	Yes, major 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	Unknown
Additional details for Equipment Involved. Please specify	Source of high H2S output unknown

Representative Compositional Analysis of Vented or Flared Natural Gas

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

Methane (CH4) percentage	67
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	100
Carbon Dioxide (CO2) percentage, if greater than one percent	2
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	08/18/2021
Time venting and/or flaring was discovered or commenced	06:00 PM
Time venting and/or flaring was terminated	11:59 PM
Cumulative hours during this event	23

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: Pipeline Quality Specifications Unknown Natural Gas Flared Released: 2,979 Mcf Recovered: 0 Mcf Lost: 2,979 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
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.
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	Unexpected high H2S that put gas out of pipeline spec.
Steps taken to limit the duration and magnitude of venting and/or flaring	Gas was re-routed to sales as soon as chemical treatment was put in place. Technician dispatched to site immediately
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Submit work order and treat chemically

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CONDITIONS

Action 46508

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Operator: Titus Oil & Gas Production, LLC 420 Throckmorton St, Ste 1150 Fort Worth, TX 76012	OGRID: 373986
	Action Number: 46508
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
rdelong	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.	9/6/2021