Midland Laboratory
3312 Bankhead Highway
Midland, TX 79701
Phone 432-689-7252

Certificate of Analysis

Number: 5030-18110072-014A

Dec. 13, 2018

Ethan McMahon
Comm Engineering
1319 West Pinhook Rd
Suite 401
Lafayette, LA 70503

Station Name:	SNAKE ST	Sampled By:	JOSEPH WHITAKER
Station Location:	EDDY COUNTY NM	Sample Of:	Gas Spot
Sample Point:	METER TUBE	Sample Date:	11/07/2018 11:55
Cylinder No:	5030-00375	Sample Conditions:	38.5 psig, @ 58.3 °F
Analyzed:	11/08/2018 21:33:14 by DS	Method:	GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+	3.276
Nitrogen	1.085	1.593		GPM TOTAL C3+	1.557
Carbon Dioxide	0.013	0.030		GPM TOTAL iC5+	0.411
Methane	87.442	73.520			
Ethane	6.443	10.154	1.719		
Propane	2.674	6.180	0.735		
Iso-butane	0.446	1.359	0.146		
n-Butane	0.842	2.565	0.265		
Iso-pentane	0.263	0.994	0.096		
n-Pentane	0.257	0.972	0.093		
Hexanes Plus	0.535	2.633	0.222		
	100.000	100.000	3.276		

Calculated Physical Properties	**Total**	**C6+**
Relative Density Real Gas	0.6604	3.2275
Calculated Molecular Weight	19.08	93.48
Compressibility Factor	0.9971	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1154	5029
Water Sat. Gas Base BTU	1134	4941

Hydrocarbon Laboratory Manager

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Station Location:	EDDY COUNTY NM	Sample Of:	Gas Spot
Sample Point:	METER TUBE	Sample Date:	11/07/2018 11:55
Cylinder No:	5030-00375	Sample Conditions:	38.5 psig, @ 58.3 °F
Analyzed:	11/08/2018 21:33:14 by DS	Method:	GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+	3.2760
Nitrogen	1.085	1.593		GPM TOTAL C3+	1.5570
Methane	87.442	73.520		GPM TOTAL iC5+	0.4110
Carbon Dioxide	0.013	0.030			
Ethane	6.443	10.154	1.719		
Propane	2.674	6.180	0.735		
Iso-Butane	0.446	1.359	0.146		
n-Butane	0.842	2.565	0.265		
Iso-Pentane	0.263	0.994	0.096		
n-Pentane	0.257	0.972	0.093		
Hexanes	0.211	0.989	0.090		
Heptanes Plus	0.324	1.644	0.132		
	100.000	100.000	3.276		

Calculated Physical Properties	Total	C7+
Relative Density Real Gas	0.6604	3.4253
Calculated Molecular Weight	19.08	99.21
Compressibility Factor	0.9971	
26 # Gasoline	2.2271	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1153.9	5271.4
Water Sat. Gas Base BTU	1133.7	5179.2

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Dec. 13, 2018

Station Name:	SNAKE ST	Sampled By:	JOSEPH WHITAKER
Station Location:	EDDY COUNTY NM	Sample Of:	Gas Spot
Sample Point:	METER TUBE	Sample Date:	11/07/2018 11:55
Cylinder No:	5030-00375	Sample Conditions:	38.5 psig, @ 58.3 °F
Analyzed:	11/08/2018 21:33:14 by DS	Method:	GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.000	0.000	
Nitrogen	1.085	1.593	
Carbon Dioxide	0.013	0.030	
Methane	87.442	73.520	
Ethane	6.443	10.154	1.719
Propane	2.674	6.180	0.735
Iso-Butane	0.446	1.359	0.146
n-Butane	0.842	2.565	0.265
Iso-Pentane	0.263	0.994	0.096
n-Pentane	0.257	0.972	0.093
i-Hexanes	0.126	0.585	0.053
n-Hexane	0.085	0.404	0.037
Benzene	0.008	0.030	0.002
Cyclohexane	0.046	0.210	0.016
i-Heptanes	0.094	0.468	0.039
n-Heptane	0.031	0.165	0.015
Toluene	0.009	0.044	0.003
i-Octanes	0.079	0.436	0.035
n-Octane	0.011	0.064	0.005
Ethylbenzene	0.001	0.005	0.000
Xylenes	0.005	0.027	0.002
i-Nonanes	0.016	0.075	0.006
n-Nonane	0.004	0.022	0.002
Decane Plus	0.020	0.098	0.007
	100.000	100.000	3.276

GPM TOTAL C2+ 3.276

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	19.08	134.41
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1153.9	6996.5
Water Sat. Gas Base BTU	1133.7	6874.1
Relative Density Real Gas	0.6604	4.6312
Compressibility Factor	0.9971	

Hydrocarbon Laboratory Manager

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New Mexico OCD C-129
Calculations or Specific Justification for Volumes

- **Calculations**
  No calculations of volume of vent/flare necessary. Volumes are metered.
- **Specific Justification for Volumes**
  Metered volumes that were previously sold via pipeline. Must flare gas due to sales pipeline being shut-in.

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 46450

QUESTIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 46450
	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	**[fAPP2124631913] Leo 3 Fed**

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional 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, 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	*Not answered.*
Additional details for Equipment Involved. Please specify	*Not answered.*

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	87
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	0
Oxygen (02) 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 Sufide (H2S) PPM quality requirement	*Not answered.*
Carbon Dioxide (C02) percentage quality requirement	*Not answered.*
Oxygen (02) percentage quality requirement	*Not answered.*

Date(s) and Time(s)	
Date venting and/or flaring was discovered or commenced	08/21/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	12:00 AM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	*Not answered.*

Natural Gas Flared (Mcf) Details	Cause: Midstream Emergency Maintenance | Separator | Natural Gas Flared | Released: 90 Mcf | Recovered: 0 Mcf | Lost: 90 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	Yes
Date notified of downstream activity requiring this venting and/or flaring	08/21/2021
Time notified of downstream activity requiring this venting and/or flaring	12:00 AM

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	Sales Pipeline shut in.
Steps taken to limit the duration and magnitude of venting and/or flaring	Communicate with sales pipeline for anticipated date of return service.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Communicate with sales pipeline for anticipated date of return of service.

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CONDITIONS

Action 46450

CONDITIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 46450
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
reyesm01	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.	9/3/2021