SPL

Certificate of Analysis

Number: 5030-18110072-011A

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

Dec. 13, 2018

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

Station Name:	LEA UNIT CTB/TPG	Sampled By:	JOSEPH WHITAKER
Station Location:	LEA COUNTY NM	Sample Of:	Gas Spot
Sample Point:	HEATER TREATER	Sample Date:	11/07/2018 07:50
Analyzed:	11/08/2018 20:32:52 by Administrator	Sample Conditions:	35 psig, @ 111 °F
		Method:	GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.010	0.013		GPM TOTAL C2+	10.094
Nitrogen	2.745	2.844		GPM TOTAL C3+	6.044
Carbon Dioxide	3.903	6.352		GPM TOTAL iC5+	1.133
Methane	58.216	34.536			
Ethane	15.145	16.841	4.050		
Propane	11.467	18.699	3.159		
Iso-butane	1.474	3.168	0.482		
n-Butane	4.028	8.658	1.270		
Iso-pentane	0.867	2.313	0.317		
n-Pentane	0.904	2.412	0.328		
Hexanes Plus	1.241	4.164	0.488		
	100.000	100.000	10.094		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.9383	3.1036
Calculated Molecular Weight	27.04	89.89
Compressibility Factor	0.9943	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1458	4790
Water Sat. Gas Base BTU	1433	4707

Hydrocarbon 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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Sample Point: HEATER TREATER
Analyzed: 11/08/2018 20:32:52 by Administrator

Sampled By: JOSEPH WHITAKER
Sample Of: Gas Spot
Sample Date: 11/07/2018 07:50
Sample Conditions: 35 psig, @ 111 °F
Method: GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.010	0.013	
Nitrogen	2.745	2.844	
Methane	58.216	34.536	
Carbon Dioxide	3.903	6.352	
Ethane	15.145	16.841	4.050
Propane	11.467	18.699	3.159
Iso-Butane	1.474	3.168	0.482
n-Butane	4.028	8.658	1.270
Iso-Pentane	0.867	2.313	0.317
n-Pentane	0.904	2.412	0.328
Hexanes	0.515	1.618	0.208
Heptanes Plus	0.726	2.546	0.280
	100.000	100.000	10.094

GPM TOTAL C2+	10.0940
GPM TOTAL C3+	6.0440
GPM TOTAL iC5+	1.1330

Calculated Physical Properties	Total	C7+
Relative Density Real Gas	0.9383	3.2292
Calculated Molecular Weight	27.04	93.53
Compressibility Factor	0.9943	
26 # Gasoline	6.0734	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1458.3	4890.1
Water Sat. Gas Base BTU	1432.7	4804.6

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Station Location: LEA COUNTY NM
Sample Point: HEATER TREATER
Analyzed: 11/08/2018 20:32:52 by Administrator

Sampled By: JOSEPH WHITAKER
Sample Of: Gas Spot
Sample Date: 11/07/2018 07:50
Sample Conditions: 35 psig, @ 111 °F
Method: GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.010	0.013	
Nitrogen	2.745	2.844	
Carbon Dioxide	3.903	6.352	
Methane	58.216	34.536	
Ethane	15.145	16.841	4.050
Propane	11.467	18.699	3.159
Iso-Butane	1.474	3.168	0.482
n-Butane	4.028	8.658	1.270
Iso-Pentane	0.867	2.313	0.317
n-Pentane	0.904	2.412	0.328
i-Hexanes	0.333	1.036	0.133
n-Hexane	0.182	0.582	0.075
Benzene	0.098	0.282	0.028
Cyclohexane	0.120	0.371	0.041
i-Heptanes	0.232	0.782	0.091
n-Heptane	0.041	0.152	0.019
Toluene	0.050	0.169	0.017
i-Octanes	0.123	0.481	0.054
n-Octane	0.011	0.049	0.006
Ethylbenzene	0.005	0.017	0.002
Xylenes	0.012	0.039	0.004
i-Nonanes	0.014	0.092	0.007
n-Nonane	0.007	0.031	0.004
Decane Plus	0.013	0.081	0.007
	100.000	100.000	10.094

GPM TOTAL C2+ 10.094

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	27.04	128.37
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1458.3	6644.4
Water Sat. Gas Base BTU	1432.7	6528.1
Relative Density Real Gas	0.9383	4.4420
Compressibility Factor	0.9943	

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 46442

QUESTIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 46442
	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	**[fAPP2124653228] Lea Unit South**

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, 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	*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	58
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	90
Carbon Dioxide (C02) percentage, if greater than one percent	4
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	08/11/2021
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: 6,090 Mcf | Recovered: 0 Mcf | Lost: 6,090 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	08/11/2021
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 service.

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CONDITIONS

Action 46442

CONDITIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 46442
	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