



CERTIFICATE OF ANALYSIS
18110568-002A

Houston Laboratories
8820 Interchange Drive
Houston, TX 77054
Phone 713.660.0901

Customer: COMM Engineering
Attn: Ethan McMahon
1319 W. Pinhook Rd., Suite 401
Lafayette, LA 70503

Report Date: 12/12/18

PO / Ref. No.:

Company: COMM Engineering
Field:
Well: Cooper Jal Unit_18110072

Sample Of: Liquid
Sample Date/Time: 11/05/18
Sample Psig & Temp: 38.7 psia @ 67 °F
Sampled By: JW
Cylinder # : 1030-06326

Sample Point: Spot / Oil Dump

Comments: EOS Flash Gas Composition

Staged Flash from 38.7 psia @ 67°F to 14.7 psia @ 72°F

	<u>MOL %</u>	<u>WEIGHT %</u>	<u>GPM's @ 14.696</u>
NITROGEN	15.590	16.003	
METHANE	56.513	33.220	
CO2	2.896	4.671	
ETHANE	7.795	8.588	2.089
PROPANE	6.475	10.462	1.788
I-BUTANE	1.394	2.969	0.457
N-BUTANE	4.136	8.808	1.307
I-PENTANE	1.620	4.282	0.594
N-PENTANE	1.608	4.252	0.584
I-HEXANE	0.579	1.830	0.239
N-HEXANE	0.389	1.229	0.160
2,2,4 TRIMETHYLPENTANE	0.005	0.019	0.002
BENZENE	0.051	0.146	0.014
HEPTANES	0.604	2.139	0.279
TOLUENE	0.062	0.210	0.021
OCTANES	0.211	0.868	0.108
E-BENZENE	0.013	0.049	0.005
m,o,&p-XYLENE	0.017	0.065	0.006
NONANES	0.041	0.190	0.023
DECANES PLUS	0.000	0.000	0.000
TOTALS	<u>100.000</u>	<u>100.000</u>	<u>7.678</u>

CALCULATED VALUES

CALCULATED MOLECULAR WEIGHT TOTAL	27.317	
REAL, DRY BTU AT 14.696 PSIA, 60 DEG.F	1289.2	
REAL, WET BTU AT 14.696 PSIA, 60 DEG.F	1266.7	
REAL, RELATIVE DENSITY	0.9474	
COMPRESSIBILITY FACTOR	0.99521	
	<u>C2+</u>	<u>C5+</u>
REAL, GPM's @ 14.696 psia, 60 Deg.F	7.678	2.037

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.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Action 222408

DEFINITIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 222408
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application: <ul style="list-style-type: none">• this application's operator, hereinafter "this operator";• venting and/or flaring, hereinafter "vent or flare";• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";• the statements in (and/or attached to) this, hereinafter "the statements in this";• and the past tense will be used in lieu of mixed past/present tense questions and statements.
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QUESTIONS

Action 222408

QUESTIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 222408
	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	Unavailable.
Incident Facility	[fAPP2135049532] Cooper Jal Unit BT20419

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 this vent or flare caused by an emergency or malfunction	Yes
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a vent or flare 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 at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this vent or flare 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 vent or flare 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	57
Nitrogen (N2) percentage, if greater than one percent	16
Hydrogen Sulfide (H2S) PPM, rounded up	37,000
Carbon Dioxide (C02) percentage, if greater than one percent	3
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.

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QUESTIONS, Page 2

Action 222408

QUESTIONS (continued)

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	Action Number: 222408
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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/17/2023
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
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 Scheduled Maintenance Separator Natural Gas Flared Released: 134 Mcf Recovered: 0 Mcf Lost: 134 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 this vent or flare a result of downstream activity	Yes
Was notification of downstream activity received by this operator	Yes
Downstream OGRID that should have notified this operator	[24650] TARGA MIDSTREAM SERVICES LLC
Date notified of downstream activity requiring this vent or flare	04/17/2023
Time notified of downstream activity requiring this vent or flare	11:09 AM

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	Targa notified us of a scheduled Monument plant turnaround of Versado Gas Processors, L. L. C. gathering system.
Steps taken to limit the duration and magnitude of vent or flare	Communicate with sales pipeline for anticipated date of return service.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Communicate with sales pipeline for anticipated date of return service.

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ACKNOWLEDGMENTS

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	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
<input checked="" type="checkbox"/>	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
<input checked="" type="checkbox"/>	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
<input checked="" type="checkbox"/>	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS

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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.	5/31/2023