



Certificate of Analysis

Number: 6030-21120310-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Murchison
Murchison
5325 Sierra Vista Dr
Carlsbad, NM 88220

Jan. 03, 2022

Station Name: Rock Ridge Fed WCB 9H

Station Number: 6200026

Station Location: Murchison

Sample Point: Meter Run

Instrument: 70142339 (Inficon GC-MicroFusion)

Last Inst. Cal.: 01/03/2022 0:00 AM

Analyzed: 01/03/2022 09:31:55 by ERG

Sampled By: Michael Mirabal

Sample Of: Gas Spot

Sample Date: 12/29/2021 11:44

Sample Conditions: 165 psig, @ 106 °F Ambient: 64 °F

Effective Date: 12/29/2021 11:44

Method: GPA-2261M

Cylinder No: 5030-00052

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+ 6.084
Nitrogen	0.716	0.71840	0.933		GPM TOTAL C3+ 3.005
Methane	77.737	77.99752	58.010		GPM TOTAL iC5+ 0.752
Carbon Dioxide	0.144	0.14398	0.294		
Ethane	11.460	11.49865	16.029	3.079	
Propane	5.098	5.11521	10.457	1.411	
Iso-butane	0.845	0.84824	2.286	0.278	
n-Butane	1.781	1.78698	4.815	0.564	
Iso-pentane	0.482	0.48372	1.618	0.177	
n-Pentane	0.534	0.53569	1.792	0.194	
Hexanes Plus	0.869	0.87161	3.766	0.381	
	99.666	100.00000	100.000	6.084	

Calculated Physical Properties

Relative Density Real Gas

Total

0.7473

C6+

3.2176

Calculated Molecular Weight

21.57

93.19

Compressibility Factor

0.9961

GPA 2172 Calculation:

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

Real Gas Dry BTU

1296

5129

Water Sat. Gas Base BTU

1274

5040

Ideal, Gross HV - Dry at 14.696 psia

1291.4

5129.2

Ideal, Gross HV - Wet

1268.9

5039.7

Comments: H2S Field Content 0 ppm
Mcf/day 3292

Hydrocarbon Laboratory Manager

Quality Assurance:

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

Rock Ridge CTB

Facility ID: fAPP2132130580

32.19175 -104.01648, H-30-24S-29E, Eddy County

Flare Meter Volumes

Date	Flared MCF	Line Pressure	Cause
1/20/2022	567	92	SCM Compressor Failure
Total	567		

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District IV
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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

DEFINITIONS

Action 90454

DEFINITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 90454
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 90454

QUESTIONS

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	Action Number:	90454
	Action Type:	[C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

Prerequisites	
<i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Operator	[15363] Murchison Oil and Gas, LLC
Incident Type	Flare
Incident Status	Closure Not Approved
Incident Well	Not answered.
Incident Facility	[fAPP2132130580] Rock Ridge Fed CTB
<i>Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.</i>	

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	No
Is this considered a submission for a vent or flare event	Yes, major venting and/or flaring of natural gas.
<i>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.</i>	
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 within 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	78
Nitrogen (N2) percentage, if greater than one percent	1
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
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
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.

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QUESTIONS, Page 2

Action 90454

QUESTIONS (continued)

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

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/20/2022
Time vent or flare was discovered or commenced	12:00 PM
Time vent or flare was terminated	06:00 PM
Cumulative hours during this event	6

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: High Line Pressure Producing Well Natural Gas Flared Released: 567 Mcf Recovered: 0 Mcf Lost: 567 Mcf
Other Released Details	Cause: Other (Specify) Released: 0 (Unknown Released Amount) Recovered: 0 Lost: 0
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	No
Downstream OGRID that should have notified this operator	[373554] Salt Creek Midstream, LLC
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

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	Compressor failure at gas plant.
Steps taken to limit the duration and magnitude of vent or flare	Wells were choked back to reduce production.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Corrective action not in our control and reliant on outside sources.

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ACKNOWLEDGMENTS

Action 90454

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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
<input checked="" type="checkbox"/>	I hereby certify the statements in this amending 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
ccottrell	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	3/15/2022