



## Certificate of Analysis

Number: 6030-24010172-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chandler Montgomery  
Occidental Petroleum  
1502 W Commerce Dr.  
Carlsbad, NM 88220

Jan. 17, 2024

Field: PERMIAN\_RESOURCES  
Station Name: Falcon Ridge CPF Flare Fuel  
Station Number: N/A  
Station Location: Fuel Gas  
Sample Point: Inlet  
Formation: NEW\_MEXICO  
County: Lea  
Well Name: N/A  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge  
Sampling Company: :SPL

Sampled By: Mike Armijo  
Sample Of: Gas Composite  
Sample Date: 01/15/2024 11:45  
Sample Conditions: 123 psig Ambient: 78 °F  
Effective Date: 01/15/2024 11:45  
Flow Rate: N/A  
Method: GPA-2261M  
Cylinder No: 1111-008297  
Instrument: 70104251 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 01/15/2024 0:00 AM  
Analyzed: 01/16/2024 13:57:29 by EBH

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0005	0.0008	
Nitrogen	1.3597	1.3866	1.7817	
Carbon Dioxide	1.0467	1.0674	2.1548	
Methane	73.3808	74.8346	55.0684	
Ethane	12.2177	12.4597	17.1853	3.326
Propane	6.6220	6.7532	13.6595	1.857
Iso-Butane	0.7649	0.7801	2.0798	0.255
n-Butane	1.6468	1.6794	4.4774	0.528
Iso-Pentane	0.4382	0.4469	1.4790	0.163
n-Pentane	0.4004	0.4083	1.3513	0.148
Hexanes	0.1293	0.1319	0.5214	0.054
Heptanes	0.0450	0.0459	0.2110	0.021
Octanes	0.0043	0.0044	0.0231	0.002
Nonanes Plus	0.0011	0.0011	0.0065	0.001
	98.0569	100.0000	100.0000	6.355

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C9+</b>
Calculated Molecular Weight	21.80	128.26
Compressibility Factor	0.9962	
Relative Density Real Gas	0.7553	4.4283

## GPA 2172 Calculation:

Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia & 60°F

Real Gas Dry BTU	1270.6	6974.4
Water Sat. Gas Base BTU	1248.9	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1265.8	6974.4
Ideal, Gross HV - Wet	1243.7	6852.4

**Comments:** H2S Field Content 4.5 ppm  
FMP/LSE N/A,

Hydrocarbon Laboratory Manager

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

**UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Falcon Ridge CPF**Flare Date:** 01/15/2024**Duration of Event:** 2 Hours 30 Minutes**MCF Flared:** 314**Start Time:** 07:40 AM**End Time:** 10:10 AM**Cause:** Emergency Flare > Compression Equipment Malfunctions > Falcon Ridge CGL > Freezing Conditions**Method of Flared Gas Measurement:** Gas Flare Meter

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**1. Reason why this event was beyond Operator's control:**

The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, extreme freezing weather temperatures and conditions affected the Falcon Ridge CGL, prompting several instances of sudden and unexpected malfunctions to occur within a 24-hour period, which in turn, then prompted high field pressure to occur, which then triggered various intermittent flaring instances to occur, at the Falcon Ridge CPF, within a 24-hour period. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.

**2. Steps Taken to limit duration and magnitude of venting or flaring:**

It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon notice of flaring, malfunction gas compressor unit and/or multiple unit shutdown alarms, increased sensor line pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, extreme freezing weather temperatures and conditions affected the Falcon Ridge CGL, prompting several instances of sudden and unexpected malfunctions to occur within a 24-hour period, which in turn, then prompted high field pressure to occur, which then triggered various intermittent flaring instances to occur, at the Falcon Ridge CPF, within a 24-hour period. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Compressor engines are designed to operate in a precise manner and when malfunctions occur, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Compressor malfunctions can occur without warning and therefore, Oxy is unable to predict, avoid or prevent various types of malfunctions

from occurring. As soon as the Oxy production tech, who was on-site, saw flaring occur in each instance, he began to make phone calls to other field production techs to start shutting in wells while trying to bring compressors back online. The Oxy production tech then contacted Oxy's personnel to begin making injection rate changes, so that field pressure would stay below the flare trigger setpoints of the Falcon Ridge CPF to cease flaring. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.

### **3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:**

Oxy is very limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring, caused by extreme freezing weather conditions, as notwithstanding various equipment design and operation, countless forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate all its equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program and its winterization protocols and processes.

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**District II**  
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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 309697

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 309697
	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"><li>this application's operator, hereinafter "this operator";</li><li>venting and/or flaring, hereinafter "vent or flare";</li><li>any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul>
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QUESTIONS

Action 309697

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	309697
	Action Type:	[C-129] Venting and/or Flaring (C-129)

QUESTIONS

<b>Prerequisites</b> 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	[fAPP2331575145] Falcon Ridge Tankless CPF

<b>Determination of Reporting Requirements</b> 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, 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

<b>Equipment Involved</b>	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Compression Equipment Malfunctions > Falcon Ridge CGL > Freezing Conditions

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	75
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	5
Carbon Dioxide (C02) percentage, if greater than one percent	1
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 Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2  
Action 309697

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 309697
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/15/2024
Time vent or flare was discovered or commenced	07:40 AM
Time vent or flare was terminated	10:10 AM
Cumulative hours during this event	3

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Flared   Released: 314 Mcf   Recovered: 0 Mcf   Lost: 314 Mcf.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Gas Flare Meter
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	No
Was notification of downstream activity received by this operator	Not answered.
Downstream OGRID that should have notified this operator	Not answered.
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	The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, extreme freezing weather temperatures and conditions affected the Falcon Ridge CGL, prompting several instances of sudden and unexpected malfunctions to occur within a 24-hour period, which in turn, then prompted high field pressure to occur, which then triggered various intermittent flaring instances to occur, at the Falcon Ridge CPF, within a 24-hour period. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
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ACKNOWLEDGMENTS

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	16696
	Action Number:
	309697
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 <b>complete</b> 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

Action 309697

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	Action Number: 309697
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CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	1/31/2024