Certificate of Analysis

Number: 6030-23110129-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

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

Nov. 14, 2023

Field:	PERMIAN_RESOURCES	Sampled By:	Raul Salazar
Station Name:	Falcon Ridge CPF Production #2	Sample Of:	Gas Spot
Station Number:	16840p	Sample Date:	11/13/2023 08:48
Station Location:	OP-L3821-BT001	Sample Conditions:	109 psig, @ 93.8 °F Ambient: 51 °F
Sample Point:	Meter run	Effective Date:	11/13/2023 08:48
Formation:	NEW_MEXICO	Method:	GPA-2261M
County:	Lea, NM	Cylinder No:	4030-004290
Well Name:		Instrument:	70104251 (Inficon GC-MicroFusion)
Type of Sample: :	Spot-Cylinder	Last Inst. Cal.:	11/06/2023 0:00 AM
Heat Trace Used:	N/A	Analyzed:	11/14/2023 08:47:52 by EBH
Sampling Method: :	Fill and Purge	Flow Rate mcf/d:	
Sampling Company: :	SPL - OXY		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0010	0.0015	
Nitrogen	1.4421	1.4865	1.8527	
Carbon Dioxide	0.3635	0.3747	0.7337	
Methane	71.8252	74.0368	52.8427	
Ethane	12.0641	12.4356	16.6361	3.321
Propane	6.7642	6.9725	13.6788	1.918
Iso-Butane	0.7457	0.7687	1.9878	0.251
n-Butane	1.9680	2.0286	5.2457	0.639
Iso-Pentane	0.5003	0.5157	1.6554	0.188
n-Pentane	0.5069	0.5225	1.6772	0.189
Hexanes	0.3635	0.3747	1.4366	0.154
Heptanes	0.3195	0.3293	1.4680	0.152
Octanes	0.1422	0.1466	0.7450	0.075
Nonanes Plus	0.0066	0.0068	0.0388	0.004
	97.0118	100.0000	100.0000	6.891

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	22.48	128.26
Compressibility Factor	0.9959	
Relative Density Real Gas	0.7790	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1322.9	6974.4
Water Sat. Gas Base BTU	1300.3	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1317.5	6974.4
Ideal, Gross HV - Wet	1294.4	6852.4

Comments: H2S Field Content 10 ppm

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 Tankless CPF **Flare Date:** 11/29/2023

Duration of Event: 1 Hour 20 Minutes **MCF Flared:** 56

Start Time: 9:50 AM **End Time:** 11:10 AM

Cause: Emergency Flare > Equipment Malfunctions > Fault Alarm on Compressor > Overpressure VRU's

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, gas had to be flared rather than be compressed when one of the compressors went down on a faulty high scrubber level alarm due to a loose wire. The compressor unit going down caused excessive gas to build up in the sales line from the Falcon Ridge CGL to the Falcon Ridge CPF facility, which in turn, caused the VRUs to automatically shut down on a high discharge pressure malfunction, which then triggered the gas to be routed to the flare, out of necessity to protect personnel and equipment as a safeguard until the compressor's scrubber dump valve could be reset and the compressor unit could be restarted and returned to normal maximized operation.

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

It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, gas had to be flared rather than be compressed when one of the compressors went down on a faulty high scrubber level alarm due to a loose wire. The compressor unit going down caused excessive gas to build up in the sales line from the Falcon Ridge CGL to the Falcon Ridge CPF facility, which in turn, caused the VRUs to automatically shut down on a high discharge pressure malfunction, which then triggered the gas to be routed to the flare, out of necessity to protect personnel and equipment as a safeguard until the compressor's scrubber dump valve could be reset and the compressor unit could be restarted and returned to normal maximized operation. As soon as the compressor unit went down, and a malfunction alarm was received, Oxy field personnel worked diligently and efficiently to determine cause of the sudden and unexpected malfunction, which was a located wiring fault. Once the repair was completed, the compressor was restarted and placed back in service and the VRUs were then able to be put back in service due to the lower facility pressure and flaring ceased.

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

Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a malfunctioning compressor unit or VRU, as notwithstanding proper equipment design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. OXY makes every effort to control and minimize emissions as much as possible during these circumstances. The limited actions that Oxy can do in this circumstance is to immediately investigate the failure and find the issues return the equipment to normal operation to have the issue resolved in a timely manner and continue monitoring the equipment until its repair and restoration to normal operations is complete.

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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

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 297505
	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:

- 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 297505

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 297505
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 ID (n#)	*Unavailable.*
Incident Name	*Unavailable.*
Incident Type	**Flare**
Incident Status	*Unavailable.*
Incident Facility	**[fAPP2331575145] Falcon Ridge Tankless CPF**
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.	

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 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

Equipment Involved	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Equipment Malfunctions > Fault Alarm on Compressor > Overpressure VRU's

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	10
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (02) percentage quality requirement	0

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 297505
	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	11/29/2023
Time vent or flare was discovered or commenced	09:50 AM
Time vent or flare was terminated	11:10 AM
Cumulative hours during this event	1

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: 56 MCF | Recovered: 0 MCF | Lost: 56 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	No
Downstream OGRID that should have notified this operator	0
Date notified of downstream activity requiring this vent or flare	
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, gas had to be flared rather than be compressed when one of the compressors went down on a faulty high scrubber level alarm due to a loose wire. The compressor unit going down caused excessive gas to build up in the sales line from the Falcon Ridge CGL to the Falcon Ridge CPF facility, which in turn, caused the VRUs to automatically shut down on a high discharge pressure malfunction, which then triggered the gas to be routed to the flare, out of necessity to protect personnel and equipment as a safeguard until the compressor’s scrubber dump valve could be reset and the compressor unit could be restarted and returned to normal maximized operation.
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Steps taken to limit the duration and magnitude of vent or flare	due to a loose wire. The compressor unit going down caused excessive gas to build up in the sales line from the Falcon Ridge CGL to the Falcon Ridge CPF facility, which in turn, caused the VRUs to automatically shut down on a high discharge pressure malfunction, which then triggered the gas to be routed to the flare, out of necessity to protect personnel and equipment as a safeguard until the compressor's scrubber dump valve could be reset and the compressor unit could be restarted and returned to normal maximized operation. As soon as the compressor unit went down, and a malfunction alarm was received, Oxy field personnel worked diligently and efficiently to determine cause of the sudden and unexpected malfunction, which was a located wiring fault. Once the repair was completed, the compressor was restarted and placed back in service and the VRUs were then able to be put back in service due to the lower facility pressure and flaring ceased.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a malfunctioning compressor unit or VRU, as notwithstanding proper equipment design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. OXY makes every effort to control and minimize emissions as much as possible during these circumstances. The limited actions that Oxy can do in this circumstance is to immediately investigate the failure and find the issues return the equipment to normal operation to have the issue resolved in a timely manner and continue monitoring the equipment until its repair and restoration to normal operations is complete.

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ACKNOWLEDGMENTS

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	Action Number: 297505
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

ACKNOWLEDGMENTS

☑	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.
☑	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.
☑	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.
☑	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.
☑	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 297505

CONDITIONS

Operator:	OGRID:
OXY USA INC P.O. Box 4294 Houston, TX 772104294	16696
	Action Number: 297505
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	12/26/2023