



Certificate of Analysis

Number: 6030-23020153-001A

Artesia Laboratory

200 E Main St.
Artesia, NM 88210
Phone 575-746-3481Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Feb. 16, 2023

Field: Mesa Verde
 Station Name: Mesa Verde CTB Check 1
 Station Number: 15500C
 Station Location: CTB
 Sample Point: Meter
 Formation: Monthly
 County: Eddy, NM
 Type of Sample: : Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: : Fill and Purge
 Sampling Company: :SPL

Sampled By: Raul Salazar
 Sample Of: Gas Spot
 Sample Date: 02/08/2023
 Sample Conditions: 100 psig, @ 68.1 °F Ambient: 60 °F
 Effective Date: 02/08/2023
 Method: GPA-2261M
 Cylinder No: 1111-007270
 Instrument: 70104251 (Inficon GC-MicroFusion)
 Last Inst. Cal.: 02/14/2023 0:00 AM
 Analyzed: 02/16/2023 08:20:17 by EBH

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Nitrogen	1.043	1.07373	1.316	
Carbon Dioxide	3.190	3.28336	6.323	
Methane	70.661	72.72877	51.057	
Ethane	11.554	11.89224	15.648	3.175
Propane	6.378	6.56507	12.668	1.806
Iso-Butane	0.885	0.91059	2.316	0.298
n-Butane	1.974	2.03136	5.167	0.639
Iso-Pentane	0.425	0.43775	1.382	0.160
n-Pentane	0.445	0.45813	1.446	0.166
Hexanes	0.255	0.26287	0.991	0.108
Heptanes	0.197	0.20297	0.890	0.093
Octanes	0.101	0.10437	0.522	0.053
Nonanes Plus	0.047	0.04879	0.274	0.027
	97.155	100.00000	100.000	6.525

Calculated Physical Properties

	Total	C9+
Calculated Molecular Weight	22.85	128.26
Compressibility Factor	0.9959	
Relative Density Real Gas	0.7920	4.4283

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1276.8	6974.4
Water Sat. Gas Base BTU	1255.0	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1271.6	6974.4
Ideal, Gross HV - Wet	1249.3	6852.4

Hydrocarbon Laboratory Manager

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

UPSET FLARE EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Mesa Verde 18 CTB**Flare Date:** 05/22/2023**Duration of event:** 2 Hours**MCF Flared:** 272**Start Time:** 01:45 PM**End Time:** 03:45 PM**Cause:** Emergency Flare > Downstream Activity > Enterprise > Planned Shutdown**Method of Flared Gas Measurement:** Gas Flare Meter

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

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, third-party pipeline operator, Enterprise, who owns and operates the gas pipeline, had a planned shutdown to complete some repairs at several of their facilities, which in turn instigated high sales line pressure to occur and triggering a flare event at the Mesa Verde 18 CTB. This flaring event occurred as there was no gas takeaway occurring, field psi increased until set psi levels were reached which triggered flaring at Oxy's facility, as a safety measure for operations, facility equipment, and personnel.

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, 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. This facility is a manned site. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, 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, third-party pipeline operator, Enterprise, who owns and operates the gas pipeline, had a planned shutdown in order to complete some repairs at several of their facilities, which in turn instigated high sales line pressure to occur and triggering a flare event at the Mesa Verde 18 CTB. As soon as flaring was triggered, the facility's mitigation optimizer cut injection rates to wells in the field to reduce injection rates and sales gas to return the pressure to below flare trigger setpoints of the CTB to cease flaring, which took some time to do.

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

Oxy is limited in the corrective actions to eliminate the cause and potential reoccurrence of an Enterprise gas flow pipeline restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid, prevent from happening or reoccurring. Enterprise 's downstream facilities and associated facilities, may have issues which will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise has downstream activity issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas not pushed into the Enterprise gas pipeline, to flare. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to keep continually communicate with Enterprise personnel regarding these types of situations and when possible, engage in emergency alternative compression reaction strategies.

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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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

Action 287903

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 287903
	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 287903

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 287903
	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 Operator	[16696] OXY USA INC
Incident Type	Flare
Incident Status	Closure Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2126659618] MESA VERDE 18 CTB
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 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 within 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 > Downstream Activity > Enterprise > Planned Shutdown

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	73
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	3
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sulfide (H2S) PPM quality requirement	0
Carbon Dioxide (CO2) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0

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QUESTIONS, Page 2

Action 287903

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/22/2023
Time vent or flare was discovered or commenced	01:45 PM
Time vent or flare was terminated	03:45 PM
Cumulative hours during this event	2

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: 272 MCF Recovered: 0 MCF Lost: 272 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	Yes
Was notification of downstream activity received by this operator	Yes
Downstream OGRID that should have notified this operator	[713731] Enterprise Crude Pipeline LLC
Date notified of downstream activity requiring this vent or flare	05/06/2022
Time notified of downstream activity requiring this vent or flare	02:10 PM

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 event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, third-party pipeline operator, Enterprise, who owns and operates the gas pipeline, had a planned shutdown to complete some repairs at several of their facilities, which in turn instigated high sales line pressure to occur and triggering a flare event at the Mesa Verde 18 CTB. This flaring event occurred as there was no gas takeaway occurring, field psi increased until set psi levels were reached which triggered flaring at Oxy's facility, as a safety measure for operations, facility equipment, and personnel.
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Steps taken to limit the duration and magnitude of vent or flare	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, third-party pipeline operator, Enterprise, who owns and operates the gas pipeline, had a planned shutdown in order to complete some repairs at several of their facilities, which in turn instigated high sales line pressure to occur and triggering a flare event at the Mesa Verde 18 CTB. As soon as flaring was triggered, the facility's mitigation optimizer cut injection rates to wells in the field to reduce injection rates and sales gas to return the pressure to below flare trigger setpoints of the CTB to cease flaring, which took some time to do.
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ACKNOWLEDGMENTS

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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

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	Action Number: 287903
	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.	11/22/2023