Certificate of Analysis

Number: 6030-23020273-001A

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

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

Feb. 24, 2023

Field:	Sand Dunes	Sampled By:	Raul Salazar
Station Name:	Sand Dunes CTB Check 2	Sample Of:	Gas Spot
Station Number:	17025C	Sample Date:	02/21/2023
Station Location:	CTB	Sample Conditions:	100 psig, @ 62.1 °F Ambient: 62 °F
Sample Point:	Meter	Effective Date:	02/21/2023
Formation:	Monthly	PO/Ref. No:	4501167592
County:	Eddy	Method:	GPA-2261M
Type of Sample: :	Spot-Cylinder	Cylinder No:	1111-007466
Heat Trace Used:	N/A	Instrument:	6030_GC6 (Inficon GC-3000 Micro)
Sampling Method: :	Fill and Purge	Last Inst. Cal.:	02/20/2023 0:00 AM
Sampling Company: :	SPL	Analyzed:	02/24/2023 09:47:34 by EBH

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.054	1.045	1.334		GPM TOTAL C2+	6.379
Methane	75.892	75.273	55.022		GPM TOTAL C3+	3.114
Carbon Dioxide	1.112	1.103	2.212		GPM TOTAL iC5+	0.512
Ethane	12.332	12.231	16.758	3.265		
Propane	6.406	6.354	12.766	1.747		
Iso-butane	0.806	0.799	2.116	0.261		
n-Butane	1.901	1.886	4.995	0.594		
Iso-pentane	0.390	0.387	1.272	0.141		
n-Pentane	0.410	0.407	1.338	0.147		
Hexanes Plus	0.519	0.515	2.187	0.224		
	100.822	100.000	100.000	6.379		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7604	3.2176
Calculated Molecular Weight	21.95	93.19
Compressibility Factor	0.9961	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1283	5113
Water Sat. Gas Base BTU	1261	5024
Ideal, Gross HV - Dry at 14.65 psia	1278.3	5113.2
Ideal, Gross HV - Wet	1255.9	5023.7
Net BTU Dry Gas - real gas	1165	
Net BTU Wet Gas - real gas	1145	

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: Sand Dunes South Corridor CTB **Flare Date:** 06/11/2023

Duration of event: 1 Hour 15 Minutes **MCF Flared:** 493

Start Time: 04:10 AM **End Time:** 05:25 AM

Cause: Emergency Flare > Downstream Activity Issue > Enterprise > Central Station > Gas Detection > Emergency Shut Down

Method of Flared Gas Measurement: Gas Flare Meter

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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, had an unplanned emergency shutdown of their downstream central station facility, due to a gas detection alarm, which then triggered an ESD alarm, prompting the immediate shutdown of their facility and their sales gas valve to close. This sudden and unexpected Enterprise facility shutdown greatly impacted the gas flow from Oxy's upstream facility and caused an unanticipated and unavoidable flaring event at Oxy's upstream facility. Until Enterprise's downstream facility was returned to returned to normal working operations and was able to handle the volume of gas sent to them, Oxy was forced to route its stranded gas to a flare, as it was not able to push all its gas into Enterprise's gas pipeline or offload all its stranded gas to another downstream pipeline operator. No advance warning of any kind was provided to Oxy personnel from Enterprise personnel regarding issues with their sales gas service system pipeline, or the ESD system or valve, and/or issues with their downstream facility for this event. Oxy personnel had to contact Enterprise directly when flaring started at its upstream facility to determine cause, as all Oxy's facility equipment were operating as designed prior to the flaring event occurring.

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. In this case, third-party pipeline operator, Enterprise, had an unplanned emergency shutdown of their downstream central station facility, due to a gas detection alarm, which then triggered an ESD alarm, prompting the immediate shutdown of their facility and their sales gas valve to close. This sudden and unexpected Enterprise facility shutdown greatly impacted the gas flow from Oxy's upstream facility and caused an unanticipated and unavoidable flaring event at Oxy's upstream facility. Until Enterprise's downstream facility was returned to normal working operations and was able to handle the volume of gas sent to them, Oxy was forced to route its stranded gas to a flare, as it was not able to push all its gas into Enterprise's gas pipeline or offload all its stranded gas to another downstream pipeline operator. As soon as flaring alarms were received by field personnel, they began making adjustments to the facility's well optimizer to shut in several high GOR wells. All OXY

operations and facility equipment were running at maximized optimization prior to the shutdown of Enterprise's downstream central station facility and their inability to take Oxy's volume of gas. This incident was completely out of Oxy's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event.

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 an Enterprise gas flow pipeline emergency shutdown, restriction or shut in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening or reoccurring. Enterprise 's downstream facility issues will re-occur from time to time, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise downstream facility and/or its facility equipment has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts or cuts off Oxy's ability to send gas, which then prompts Oxy to route 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 during these circumstances. The limited actions that Oxy can do in this circumstance is to shut in multiple high GOR wells and engage in secondary third-party operator offload alternative routes, when possible, to minimize flaring volumes during this third-party pipeline operator downstream activity shutdown, restriction and/or shut in.

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Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 233061
	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:

- 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 233061

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 233061
	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	**[fAPP2127048458] Sand Dunes South Corridor CTB**

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 > Downstream Activity Issue > Enterprise > Central Station > Gas Detection > Emergency Shut Down

Representative Compositional Analysis of Vented or Flared Natural Gas	
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	0
Carbon Dioxide (C02) percentage, if greater than one percent	1
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 (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 233061
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	06/11/2023
Time vent or flare was discovered or commenced	04:10 AM
Time vent or flare was terminated	05:25 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: 493 Mcf | Recovered: 0 Mcf | Lost: 493 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	No
Downstream OGRID that should have notified this operator	[713731] Enterprise Crude Pipeline 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	In this case, third-party pipeline operator, Enterprise, had an unplanned emergency shutdown of their downstream central station facility, due to a gas detection alarm, which then triggered an ESD alarm, prompting the immediate shutdown of their facility and their sales gas valve to close. This sudden and unexpected Enterprise facility shutdown greatly impacted the gas flow from Oxy's upstream facility and caused an unanticipated and unavoidable flaring event at Oxy's upstream facility. Until Enterprise's downstream facility was returned to returned to normal working operations and was able to handle the volume of gas sent to them, Oxy was forced to route its stranded gas to a flare, as it was not able to push all its gas into Enterprise's gas pipeline or offload all its stranded gas to another downstream pipeline operator. No advance warning of any kind was provided to Oxy personnel from Enterprise personnel regarding issues with their sales gas service system pipeline, or the ESD system or valve, and/or issues with their downstream facility for this event. Oxy personnel had to contact Enterprise directly when flaring started at its upstream facility to determine cause, as all Oxy's facility equipment were operating as designed prior to the flaring event occurring.
	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. In this case, third-party pipeline operator, Enterprise, had an unplanned emergency shutdown of their downstream central station facility, due to a gas

Steps taken to limit the duration and magnitude of vent or flare	detection alarm, which then triggered an ESD alarm, prompting the immediate shutdown of their facility and their sales gas valve to close. This sudden and unexpected Enterprise facility shutdown greatly impacted the gas flow from Oxy's upstream facility and caused an unanticipated and unavoidable flaring event at Oxy's upstream facility. Until Enterprise's downstream facility was returned to normal working operations and was able to handle the volume of gas sent to them, Oxy was forced to route its stranded gas to a flare, as it was not able to push all its gas into Enterprise's gas pipeline or offload all its stranded gas to another downstream pipeline operator. As soon as flaring alarms were received by field personnel, they began making adjustments to the facility's well optimizer to shut in several high GOR wells. All OXY operations and facility equipment were running at maximized optimization prior to the shutdown of Enterprise's downstream central station facility and their inability to take Oxy's volume of gas. This incident was completely out of Oxy's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event.
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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 233061
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit a *Venting and/or Flaring* (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.
☑	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.
☑	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.
☑	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 233061

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 233061
	Action Type: [C-129] Venting and/or Flaring (C-129)

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.	6/26/2023