



Certificate of Analysis

Number: 6030-21110261-001A

Artesia Laboratory

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

Dec. 01, 2021

Field:	Sand Dunes	Sampled By:	Scott Beasely
Station Name:	Sand Dunes CTB Production 2	Sample Of:	Gas Spot
Station Number:	17012P	Sample Date:	11/23/2021 10:21
Station Location:	CTB	Sample Conditions:	77.7 psig, @ 62.5 °F Ambient: 61 °F
Sample Point:	Meter	Effective Date:	11/23/2021 10:21
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy, NM	Cylinder No:	1111-002678
Type of Sample:	Spot-Cylinder	Instrument:	70142339 (Inficon GC-MicroFusion)
Heat Trace Used:	No	Last Inst. Cal.:	11/15/2021 0:00 AM
Sampling Method:	Fill and Purge	Analyzed:	12/01/2021 14:47:44 by ERG
Sampling Company:	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	1.720	1.73503	2.237	
Carbon Dioxide	1.746	1.76105	3.568	
Methane	75.250	75.89815	56.047	
Ethane	11.338	11.43562	15.828	3.052
Propane	5.503	5.55083	11.267	1.526
Iso-Butane	0.699	0.70513	1.887	0.230
n-Butane	1.672	1.68661	4.512	0.531
Iso-Pentane	0.353	0.35584	1.182	0.130
n-Pentane	0.377	0.38035	1.263	0.138
Hexanes	0.214	0.21574	0.856	0.089
Heptanes	0.170	0.17177	0.792	0.079
Octanes	0.080	0.08109	0.426	0.041
Nonanes Plus	0.023	0.02279	0.135	0.013
	99.145	100.00000	100.000	5.829

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	21.72	128.26
Compressibility Factor	0.9963	
Relative Density Real Gas	0.7526	4.4283

GPA 2172 Calculation:**Calculated Gross BTU per ft³ @ 14.65 psia & 60°F**

Real Gas Dry BTU	1243.1	6974.4
Water Sat. Gas Base BTU	1221.9	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1238.5	6974.4
Ideal, Gross HV - Wet	1216.9	6852.4

Comments: H₂S Field Content 0 ppm
Mcf/day 24561.39

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:** 11/26/2022**Duration of event:** 1 Hour 10 Minutes**MCF Flared:** 1976**Start Time:** 06:50 AM**End Time:** 08:00 AM**Cause:** Emergency Flare > Facility Emergency Shutdown > Power Outage > Recloser Switch**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:** This upset event was not caused by any wells associated with the facility. This is a combination of two (2) flaring events within a 24-Hour period, with a combined duration and volume:

(1) 06:50 AM to 07:40 AM – 50 Minutes @ 1158 MCF

(2) 11:30 AM to 11:50 AM – 20 Minutes @ 818 MCF

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

This emissions event was caused by the unforeseen, unexpected, sudden, and 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 preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, there were two (2) flaring occurrences, which were triggered when the facility had unexpected power outages, twice, within a 24-Hour period. The first instance of a sudden and unexpected power outage occurred approximately about 06:50 AM, which prompted flaring to occur. The second instance of flaring occurred a few hours later, approximately about 11:30 AM, again due to a power loss outage. The facility experienced power loss to the Rio panels that control the facility and its equipment. On both occasions of flaring, once the power outage occurred, the sales gas valves failed closed and the flare valve failed open, which in turn sent stranded gas to flare until the facility completely shut down. The Oxy production techs, who received multiple alarms for power fail and compression shutdown, arrived to the facilities, at each instance of flaring and facility shutdown alarms, to determine cause and called for electrician and automation technicians to assist in determining cause. It was determined that a recloser switch tripped on the Rio panels which in turn prompted an emergency shutdown of the facility, as the recloser trip failure did now allow extended power to the Rio panel. All Oxy's facility equipment were operating as designed prior to the sudden and unexpected 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. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, there were two (2) flaring occurrences, which were triggered when the facility had unexpected power outages, twice, within a 24-Hour period. The first instance of a sudden and

unexpected power outage occurred approximately about 06:50 AM, which prompted flaring to occur. The second instance of flaring occurred a few hours later, approximately about 11:30 AM, again due to a panel power loss outage. The facility experienced power loss to the Rio panels that control the facility and its equipment. On both occasions of flaring, once the power loss outage occurred, the sales gas valves failed closed and the flare valve failed open, which in turn sent stranded gas to flare until the facility completely shut down. The Oxy production techs, who received multiple alarms for power fail and compression shutdown, arrived to the facilities, at each instance of flaring and facility shutdown alarms, to determine cause and called for electrician and automation technicians to assist in determining cause. It was determined that a recloser switch tripped on the Rio panels which in turn prompted an emergency shutdown of the facility, as the recloser trip failure did now allow extended power to the Rio panel. The Oxy production techs shut-in multiple high GOR wells to curtail gas throughput at the Sand Dunes South Corridor CTB To significantly minimize emissions enough to cease flaring in both instances, until they were able to determine cause of power outage and resolve the issues. After determining the cause of the power outage, they reset the facility panels and recloser to restart the facility's equipment. All Oxy's facility equipment were operating as designed prior to the sudden and unexpected flaring event occurring. In addition, the Oxy production techs requested an electrician re-examine the facility's recloser switch. The Oxy production techs remained on-site to ensure no additional issues occurred with the recloser switch.

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

OXY made every effort to control and minimize emissions as much as possible during this sudden and unexpected flaring event. It is OXY's policy to route its 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. The corrective measures taken during both of these flaring events was for the Oxy production techs to reset the facility panels and recloser switch and request an electrician come out to examine the recloser switch in an effort to avoid potential issues again, which could affect the facility and its equipment.

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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 167963

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 167963
	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 167963

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 167963
	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	[fAPP2127048458] Sand Dunes South Corridor 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, major 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 > Facility Emergency Shutdown > Power Outage > Recloser Switch

Representative Compositional Analysis of Vented or Flared Natural Gas
Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	76
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	2
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 Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0

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QUESTIONS, Page 2

Action 167963

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	11/26/2022
Time vent or flare was discovered or commenced	06:50 AM
Time vent or flare was terminated	08:00 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: Power Failure Other (Specify) Natural Gas Flared Released: 1,976 MCF Recovered: 0 MCF Lost: 1,976 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	12:00 AM

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	This emissions event was caused by the unforeseen, unexpected, sudden, and 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 preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, there were two (2) flaring occurrences, which were triggered when the facility had unexpected power outages, twice, within a 24-Hour period. The first instance of a sudden and unexpected power outage occurred approximately about 06:50 AM, which prompted flaring to occur. The second instance of flaring occurred a few hours later, approximately about 11:30 AM, again due to a power loss outage. The facility experienced power loss to the Rio panels that control the facility and its equipment. On both occasions of flaring, once the power outage occurred, the sales gas valves failed closed and the flare valve failed open, which in turn sent stranded gas to flare until the facility completely shut down. The Oxy production techs, who received multiple alarms for power fail and compression shutdown, arrived to the facilities, at each instance of flaring and facility shutdown alarms, to determine cause and called for electrician and automation technicians to assist in determining cause. It was determined that a recloser switch tripped on the Rio panels which in turn prompted an emergency shutdown of the facility, as the recloser trip failure did now allow extended power to the Rio panel. All Oxy's facility equipment were operating as designed prior to the sudden and unexpected flaring event occurring.
Steps taken to limit the duration and magnitude of vent or flare	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, there were two (2) flaring occurrences, which were triggered when the facility had unexpected power outages, twice, within a 24-Hour period. The first instance of a sudden and unexpected power outage occurred approximately about 06:50 AM, which prompted flaring to occur. The second instance of flaring occurred a few hours later, approximately about 11:30 AM, again due to a panel power loss outage. The facility experienced power loss to the Rio panels that control the facility and its equipment. On both occasions of flaring, once the power loss outage occurred, the sales gas valves failed closed and the flare valve failed open, which in turn sent stranded gas to flare until the facility completely shut down. The Oxy production techs, who received multiple alarms for power fail and compression shutdown, arrived to the facilities, at each instance of flaring and facility shutdown alarms, to determine cause and called for electrician and automation technicians to assist in determining cause. It was determined that a recloser switch tripped on the Rio panels which in turn prompted an emergency shutdown of the facility, as the recloser trip failure did now allow extended power to the Rio panel. The Oxy production techs shut-in multiple high GOR wells to curtail gas throughput at the Sand Dunes South Corridor CTB To significantly minimize emissions enough to cease flaring in both instances, until they were able to determine cause of power outage and resolve the issues.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	OXY made every effort to control and minimize emissions as much as possible during this sudden and unexpected flaring event. It is OXY's policy to route its 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. The corrective measures taken during both of these flaring events was for the Oxy production techs to reset the facility panels and recloser switch and request an electrician come out to examine the recloser switch in an effort to avoid potential issues again, which could affect the facility and its equipment.

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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: 167963
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CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	12/17/2022