



Certificate of Analysis

Number: 6030-21010243-001A

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. 29, 2021

Field: Sand Dunes
Station Name: Enterprise Sand Dunes Central Inlet
Station Number: N/A
Sample Point: Inlet Meter Run
Meter Number:
County: Eddy
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge
Sampling Company: OXY

Sampled By: Scott Beasley
Sample Of: Gas Spot
Sample Date: 01/27/2021 09:32
Sample Conditions: 89.7 psig, @ 56.9 °F Ambient: 42 °F
Effective Date: 01/27/2021 09:32
Method: GPA-2261M
Cylinder No: 1111-003934
Instrument: 6030_GC6 (Inficon GC-3000 Micro)
Last Inst. Cal.: 01/25/2021 0:00 AM
Analyzed: 01/29/2021 09:36:22 by KNF

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000	0.000		GPM TOTAL C2+	6.347
Nitrogen	2.197	2.199	2.679		GPM TOTAL C3+	3.174
Methane	71.063	71.131	49.626		GPM TOTAL iC5+	0.533
Carbon Dioxide	4.248	4.252	8.138			
Ethane	11.874	11.885	15.542	3.173		
Propane	6.449	6.455	12.379	1.775		
Iso-butane	0.800	0.801	2.025	0.262		
n-Butane	1.917	1.919	4.851	0.604		
Iso-pentane	0.402	0.402	1.261	0.147		
n-Pentane	0.410	0.410	1.286	0.148		
Hexanes Plus	0.545	0.546	2.213	0.238		
	99.905	100.000	100.000	6.347		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7968	3.2176
Calculated Molecular Weight	22.99	93.19
Compressibility Factor	0.9960	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1241	5113
Water Sat. Gas Base BTU	1220	5024
Ideal, Gross HV - Dry at 14.65 psia	1236.5	5113.2
Ideal, Gross HV - Wet	1214.8	5023.7
Net BTU Dry Gas - real gas	1127	
Net BTU Wet Gas - real gas	1108	

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

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

EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Sand Dunes Enterprise Flare**Start Date:** 06/18/2021**End Date:** 06/18/2021**Cause:** Downstream Activity Issue > Enterprise high line pressure issues**Duration of event:** 14 hours**MCF Volume Flared:** 264.1**Method of Flared Gas Measurement:** 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. It is Oxy's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to ensure flame is lit and meeting opacity requirements.

In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enterprise, whose compressor station was having downstream facility issues that caused a spike in line pressure to the third-party gas gathering system, impacting Oxy's ability to send sales gas into the system from Oxy's facility. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in and once the line pressure was stabilized, Oxy was able to resume gas sales to the third-party gas gathering system.

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

Until Enterprise's facility equipment was able to handle the volume of gas sent to them, the spike in line pressure forced Oxy's upstream facility to route stranded gas to a flare. During this sudden and unexpected flaring event, OXY personnel continually monitored the third party sales line pressure in order to make necessary adjustments to its own equipment, when warranted, until Enterprise line pressure was back to normal.

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

During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own compression equipment, when

warranted, until Enterprise's line pressure was back to normal. In addition, an effort was made to reduce the volume of gas to be flared by choking back wells with pressure control valves on the flowlines. Since this event was caused by a third-party high sales gas line pressure, Oxy is unable to eliminate the root cause of the issue. However, Oxy always takes steps to minimize the volume of gas flared by choking back well production and maintaining contact with third party line operator to ensure that gas is safely directed back to sales as soon as the third-party line pressure returns to normal.

District I1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720**District II**811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720**District III**1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170**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

QUESTIONS

Action 43002

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 43002
	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	[30-015-37330] FEDERAL 29 #001
Incident Facility	Not answered.

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 or is this venting and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a notification of a major venting and/or flaring	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 or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/or flaring 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 venting and/or flaring 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 due to third party malfunction

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	72
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	4
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 Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

Date(s) and Time(s)

Date venting and/or flaring was discovered or commenced	06/18/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	02:00 PM
Cumulative hours during this event	14

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: Other Other (Specify) Natural Gas Flared Released: 264 Mcf Recovered: 0 Mcf Lost: 264 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	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 or is this venting and/or flaring a result of downstream activity	Not answered.
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/or flaring	Not answered.

Steps and Actions to Prevent Waste	
For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your 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. It is Oxy's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to ensure flame is lit and meeting opacity requirements. In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enterprise, whose compressor station was having downstream facility issues that caused a spike in line pressure to the third-party gas gathering system, impacting Oxy's ability to send sales gas into the system from Oxy's facility. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in and once the line pressure was stabilized, Oxy was able to resume gas sales to the third-party gas gathering system.
Steps taken to limit the duration and magnitude of venting and/or flaring	Until Enterprise's facility equipment was able to handle the volume of gas sent to them, the spike in line pressure forced Oxy's upstream facility to route stranded gas to a flare. During this sudden and unexpected flaring event, OXY personnel continually monitored the third party sales line pressure in order to make necessary adjustments to its own equipment, when warranted, until Enterprise line pressure was back to normal.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own compression equipment, when warranted, until Enterprise's line pressure was back to normal. In addition, an effort was made to reduce the volume of gas to be flared by choking back wells with pressure control valves on the flowlines. Since this event was caused by a third-party high sales gas line pressure, Oxy is unable to eliminate the root cause of the issue. However, Oxy always takes steps to minimize the volume of gas flared by choking back well production and maintaining contact with third party line operator to ensure that gas is safely directed back to sales as soon as the third-party line pressure returns to normal.

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CONDITIONS

Action 43002

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	Action Number: 43002
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	8/18/2021