



Certificate of Analysis

Number: 6030-21030124-006A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Mar. 12, 2021

Field:	Mesa Verde	Sampled By:	Javier Lazo
Station Name:	Mesa Verde BSU 18H LG	Sample Of:	Gas Spot
Station Number:	155381	Sample Date:	03/10/2021 09:30
Station Location:	OXY	Sample Conditions:	1185 psia, @ 89 °F Ambient: 67 °F
Sample Point:	Meter Run	Effective Date:	03/10/2021 09:30
Formation:	Quarterly	Method:	GPA-2261M
County:	Lea	Cylinder No:	5030-01186
Type of Sample:	Spot-Cylinder	Instrument:	70104251 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	03/08/2021 0:00 AM
Sampling Method:	Fill and Purge	Analyzed:	03/12/2021 13:31:22 by EJ R
Sampling Company:	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000	0.000		GPM TOTAL C2+	6.195
Nitrogen	1.367	1.362	1.750		GPM TOTAL C3+	2.934
Methane	75.196	74.948	55.148		GPM TOTAL iC5+	0.331
Carbon Dioxide	1.568	1.563	3.155			
Ethane	12.258	12.217	16.849	3.261		
Propane	6.378	6.357	12.857	1.748		
Iso-butane	0.810	0.807	2.151	0.264		
n-Butane	1.884	1.878	5.006	0.591		
Iso-pentane	0.325	0.324	1.072	0.118		
n-Pentane	0.325	0.324	1.072	0.117		
Hexanes Plus	0.221	0.220	0.940	0.096		
	100.332	100.000	100.000	6.195		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7553	3.2176
Calculated Molecular Weight	21.80	93.19
Compressibility Factor	0.9963	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1259	5113
Water Sat. Gas Base BTU	1237	5024
Ideal, Gross HV - Dry at 14.65 psia	1253.9	5113.2
Ideal, Gross HV - Wet	1232.0	5023.7
Net BTU Dry Gas - real gas	1142	
Net BTU Wet Gas - real gas	1123	

Comments: H2S Field Content 0 ppm
Mcf/day 839

Hydrocarbon Laboratory Manager

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

UPSET EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Mesa Verde 18 CTB**Date:** 08/08/2021**Duration of event:** 1 Hour 20 minutes**MCF Flared:** 510**Start Time:** 03:40 PM**End Time:** 05:00PM**Cause:** Downstream Activity>Enlink>Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter F6001**Well API Associated with Facility:** 30-015-44551 Mesa Verde Bone Spring Unit #016H

Comments: This upset event was not caused by any wells associated with the facility. This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable issue 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.

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.

In this case, there were two incidents which caused Oxy to flare and both events were sudden and reasonably unforeseeable incidents outside of OXY's control, but that impacted OXY's upstream facility. Oxy personnel was not provided advance notification of an impending shut-in or restriction of its gas system. The problem occurred downstream of OXY's custody transfer point and out of OXY's control. The disruption to the gas pipeline, for both instances, occurred on the third party operated Enlink pipeline, which restricted OXY's ability to send all its gas to their gas system. The first incident occurred from 03:40 PM to 04:00 PM and the second incident occurred from 08:40 PM to 09:40 PM. In both instances, Oxy personnel contacted Enlink personnel to inquire about the restrictions to their gas system. Enlink personnel informs Oxy that their Charro station facility is having high inlet air temperatures and are having trouble keeping up with OXY production and that full service would be restored when possible. All OXY compressor equipment was running at maximized optimization but Enlink's downstream Charro facility was struggling to keep up with our production. In both instances, OXY routed its stranded gas to a flare in order to minimize emissions as much as possible.

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

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.

In this case, the steps taken to limit duration and magnitude of flaring in both instances, was for Oxy to offload as much gas as possible to its secondary offload operator, DCP until Enlink was able to resume full service.

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

The 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. 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 is regularly monitored to ensure the flame is lit and meeting opacity requirements. Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this facility.

District I

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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
 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 42685

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 42685
	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	[30-015-44551] MESA VERDE BONE SPRING UNIT #016H
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	No
Is this considered a submission for a notification of a major venting and/or flaring	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 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 Flaring>Downstream Activity>Enlink>Equipment Issues

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 (CO2) 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	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	08/08/2021
Time venting and/or flaring was discovered or commenced	03:40 PM
Time venting and/or flaring was terminated	05:00 PM
Cumulative hours during this event	2

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: 510 Mcf Recovered: 0 Mcf Lost: 510 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Gas Flare Meter F6001
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	Yes
Date notified of downstream activity requiring this venting and/or flaring	08/08/2021
Time notified of downstream activity requiring this venting and/or flaring	03:45 PM

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	See Justification Form >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.
Steps taken to limit the duration and magnitude of venting and/or flaring	See Justification Form >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.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	See Justification Form >The 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. 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 is regularly monitored to ensure the flame is lit and meeting opacity requirements. Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this facility.

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CONDITIONS

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	Action Number: 42685
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna	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.	8/17/2021