

Certificate of Analysis

Number: 6030-20030112-003A

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

Mar. 23, 2020

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

Field: Pure Gold Station Name: Sunrise 8 Fed 3

Station Number: 83339 Station Location: OXY

Sample Point: Downstream Formation: Semi Annual

County: Eddy

Type of Sample: : Spot-Cylinder

Heat Trace Used: N/A Sampling Method: : Fill and Purge

Sampling Company: :SPL

Sampled By: Michael Mirabal Sample Of: Gas Spot Sample Date: 03/16/2020 02:55

Sample Conditions: 37 psig, @ 87 °F Ambient: 63 °F

03/16/2020 02:55 Effective Date: Method: GPA-2261M Cylinder No: 1111-002504

Instrument: 70104124 (Inficon Micro GC Fusion)

03/23/2020 0:00 AM Last Inst. Cal.: Analyzed: 03/23/2020 10:45:49 by PS

## **Analytical Data**

Components U	In-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Nitrogen	5.773	5.82704	6.234	
Carbon Dioxide	0.149	0.15070	0.253	
Methane	58.401	58.94931	36.117	
Ethane	15.384	15.52894	17.832	4.152
Propane	11.694	11.80427	19.878	3.251
Iso-Butane	1.617	1.63239	3.623	0.534
n-Butane	3.408	3.43972	7.635	1.084
Iso-Pentane	0.842	0.84961	2.341	0.311
n-Pentane	0.694	0.70072	1.931	0.254
Hexanes	0.469	0.47351	1.558	0.195
Heptanes	0.442	0.44635	1.708	0.206
Octanes	0.142	0.14344	0.626	0.073
Nonanes Plus	0.054	0.05400	0.264	0.030
	99.069	100.00000	100.000	10.090
Calculated Physical Pro		Total	(	C9+
Calculated Molecular We	eight	26.19	128	3.26
Compressibility Factor		0.9946		
Relative Density Real Ga	is	0.9087	4.4	283
<b>GPA 2172 Calculation:</b>				
Calculated Gross BTU	per ft³ @ 14.65 ps	sia & 60°F		
Real Gas Dry BTU		1457.7	697	74.4
Water Sat. Gas Base BT	U	1432.9	685	52.4
Comments: H2S Field	Content 0 ppm			

Mcf/day 15.6016

C. Montgomery

Hydrocarbon Laboratory Manager

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality

assurance, unless otherwise stated.

Quality Assurance:

### **UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM**

Well: Arkenstone 31 Federal 004H Flare Date: 12/04/2022

**Duration of event:** 1 Hour 20 Minutes **MCF Flared:** 250

Start Time: 08:10 PM End Time: 09:30 PM

Cause: Venting > Equipment Malfunction > Arkenstone 4H High Pressure Gas Compressor

Method of Flared Gas Measurement: Gas Flare Meter

Comments: Well API 30-015-46619

## 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, sudden and unexpected venting occurred as a result of a broken 1" PIT nipple on the suction side, just off the skid, of the Arkenstone 4H high pressure gas compressor. There were two (2) Oxy production techs on-site, when the PIT nipple suddenly broke and venting began. Once venting was discovered, the Oxy production techs shut in the gas feeding the compressor to stop the venting and make immediate repairs to the gas compressor. Oxy is unable to predict, avoid or prevent this type of venting from occurring as sudden and unexpected breakdowns of equipment can occur without warning. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.

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

This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. It is OXY's policy to route all stranded gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions, when possible, yet, in this case, the venting event occurred because of a broken 1" PIT nipple on the suction side, just off the skid, of the Arkenstone 4H high pressure gas compressor. There were two (2) Oxy production techs on-site, when the PIT nipple suddenly broke and venting began. Once venting was discovered, the Oxy production techs shut in the gas feeding the compressor to stop the venting and make immediate repairs to the gas compressor. Oxy is unable to predict, avoid or prevent this type of venting from occurring as sudden and unexpected breakdowns of equipment can occur without warning. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. Notwithstanding proper gas compressor design and operation, various forms of

mechanical or technical equipment breakdown 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 in a manner consistent with good practice for minimizing emissions and reducing the number of emission events. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.

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

Oxy is limited in its ability to take any corrective actions to eliminate the cause and potential reoccurrence of unexpected equipment malfunctions. 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 equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for this facility.

District I
1625 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

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 168612

#### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	168612
	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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1220 S. St Francis Dr., Santa Fe, NM 87505

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 168612

Pnone:(505) 476-3470 Fax:(505) 476-3462	LIFOTIONIO			
	UESTIONS	Laanin		
Operator: OXY USA INC		OGRID: 16696		
P.O. Box 4294		Action Number:		
Houston, TX 772104294		168612		
		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 wi	th the rest of the questions.		
Incident Well	[30-015-46619] ARKENSTO	ONE 31 FEDERAL #004H		
Incident Facility	Unavailable.	Unavailable.		
Determination of Reporting Requirements				
Answer all questions that apply. The Reason(s) statements are calculated based on your answers a		9.		
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 v	renting and/or flaring that is or ma	y 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 <b>ANY</b> 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	Venting > Equipment Malf	unction > Arkenstone 4H High Pressure Gas Compressor		
<u></u>				
Representative Compositional Analysis of Vented or Flared Natural Gas				
Please provide the mole percent for the percentage questions in this group.	T			
Methane (CH4) percentage	59			
Nitrogen (N2) percentage, if greater than one percent	6			
Hydrogen Sulfide (H2S) PPM, rounded up	0			
Carbon Dioxide (C02) percentage, if greater than one percent	0			
Oxygen (02) percentage, if greater than one percent	0			
If you are venting and/or flaring because of Pipeline Specification, please provide the required spec	ifications 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.			

Not answered.

Oxygen (02) percentage quality requirement

QUESTIONS, Page 2

Action 168612

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Phone:(5/5) 393-01011 ax.(3-7) 323-01011 ax.(3-7) 323-01011 ax.(3-7) 323-01011 ax.(3-7) 323-01011 ax.(3-7) 323-01011 ax.(3-7) 324-010 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

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

Phone:(505) 476-3470 Fax:(505) 476-3462		
QUESTI	ONS (continued)	
Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696  Action Number:  168612  Action Type:  [C-129] Venting and/or Flaring (C-129)	
QUESTIONS	[O 120] Volume and of Finding (O 120)	
Date(s) and Time(s)		
Date vent or flare was discovered or commenced	12/04/2022	
Time vent or flare was discovered or commenced	08:10 PM	
Time vent or flare was terminated	09:30 PM	
Cumulative hours during this event	1	
Measured or Estimated Volume of Vented or Flared Natural Gas		
Natural Gas Vented (Mcf) Details	Cause: Equipment Failure   Valve   Natural Gas Vented   Released: 250 Mcf   Recovered: 0 Mcf   Lost: 250 Mcf.	
Natural Gas Flared (Mcf) Details	Not answered.	
Other Released Details	Not answered.	
Additional details for Measured or Estimated Volume(s). Please specify	Estimated Vent Calculations	
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.	
No. of the Control of		
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	Not answered.	
Downstream OGRID that should have notified this operator	Not answered.	
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	True	

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, sudden and unexpected venting occurred as a result of a broken 1" PIT nipple on the suction side, just off the skid, of the Arkenstone 4H high pressure gas compressor. There were two (2) Oxy production techs onsite, when the PIT nipple suddenly broke and venting began. Once venting was discovered, the Oxy production techs shut in the gas feeding the compressor to stop the venting and make immediate repairs to the gas compressor. Oxy is unable to predict, avoid or prevent this type of venting from occurring as sudden and unexpected breakdowns of equipment can occur without warning. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.
Steps taken to limit the duration and magnitude of vent or flare	This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. It is OXY's policy to route all stranded gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions, when possible, yet, in this case, the venting event occurred because of a broken 1" PIT nipple on the suction side, just off the skid, of the Arkenstone 4H high pressure gas compressor. There were two (2) Oxy production techs onsite, when the PIT nipple suddenly broke and venting began. Once venting was discovered, the Oxy production techs shut in the gas feeding the compressor to stop the venting and make immediate repairs to the gas compressor. Oxy is unable to predict, avoid or prevent this type of venting from occurring as sudden and unexpected breakdowns of equipment can occur without warning. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical equipment breakdown 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 in a manner consistent with good practice for minimizing emissions and reducing the number of emission events. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in its ability to take any corrective actions to eliminate the cause and potential reoccurrence of unexpected equipment malfunctions. 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 equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for this facility.

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ACKNOWLEDGMENTS

Action 168612

### **ACKNOWLEDGMENTS**

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OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	168612
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

#### **ACKNOWLEDGMENTS**

V	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be <b>a complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
V	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.
V	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.
V	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.
V	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 168612

### **CONDITIONS**

Operator:	OGRID:
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P.O. Box 4294	Action Number:
Houston, TX 772104294	168612
	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.	12/20/2022