



## Certificate of Analysis

Number: 6030-21120130-003A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Dec. 15, 2021

Field: Red Tank  
Station Name: Red Tank 19 CTB Train 2 Check  
Station Number: 15622C  
Station Location: CTB  
Sample Point: Meter  
Formation: Monthly  
County: Lea, NM  
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: 12/13/2021 10:20  
Sample Conditions: 92 psig, @ 76 °F Ambient: 53 °F  
Effective Date: 12/13/2021 10:20  
Method: GPA-2261M  
Cylinder No: 5030-01624  
Instrument: 70142339 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 12/06/2021 0:00 AM  
Analyzed: 12/15/2021 11:24:15 by ERG

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.002	0.003		GPM TOTAL C2+	5.984
Nitrogen	2.194	2.201	2.678		GPM TOTAL C3+	3.142
Methane	72.085	72.313	50.388		GPM TOTAL iC5+	0.716
Carbon Dioxide	4.626	4.641	8.872			
Ethane	10.612	10.646	13.905	2.842		
Propane	5.652	5.670	10.860	1.559		
Iso-butane	0.772	0.774	1.954	0.253		
n-Butane	1.944	1.950	4.923	0.614		
Iso-pentane	0.467	0.468	1.467	0.171		
n-Pentane	0.495	0.497	1.558	0.180		
Hexanes Plus	0.835	0.838	3.392	0.365		
	99.682	100.000	100.000	5.984		

## Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7978	3.2176
Calculated Molecular Weight	23.02	93.19
Compressibility Factor	0.9960	

## GPA 2172 Calculation:

Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia & 60°F

Real Gas Dry BTU	1233	5113
Water Sat. Gas Base BTU	1212	5024
Ideal, Gross HV - Dry at 14.65 psia	1228.0	5113.2
Ideal, Gross HV - Wet	1206.5	5023.7
Net BTU Dry Gas - real gas	1120	
Net BTU Wet Gas - real gas	1101	

Comments: H2S Field Content 20 ppm  
Mcf/day 19757

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:** Red Tank 19 CTB**Flare Date:** 12/22/2022**Duration of event:** 3 Hours**MCF Flared:** 550**Start Time:** 9:11 PM**End Time:** 11:59 PM**Cause:** Emergency Flare > Third Party > USA Compression > Red Tank 26 Boo CS > Compression Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:**

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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 compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, 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 owned and operated, Red Tank 26 Boo compressor station, was having issues with their compression equipment, which in turn, instigated a sudden and unexpected restriction of gas flow intake by them, which in turn, prompted Oxy's upstream facility, Red Tank 19 CTB, to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank 26 Boo compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.

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

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. In this case, third party owned and operated, Red Tank 26 Boo compressor station, was having issues with their compression equipment, which in turn, instigated a sudden and unexpected restriction of gas flow intake by them, which in turn, prompted Oxy's upstream facility, Red Tank 19 CTB, to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. The Oxy production tech, who was on-site, then contacted Oxy's personnel to begin making choke changes, so that field pressure would stay below the flare trigger setpoints of the Red Tank 19 CTB to cease flaring. 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 cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank 26 Boo Compressor Station, when possible, during these types of circumstances.

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

DEFINITIONS

Action 264735

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 264735
	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: <ul style="list-style-type: none"><li>• this application's operator, hereinafter "this operator";</li><li>• venting and/or flaring, hereinafter "vent or flare";</li><li>• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>• the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>• and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul>
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QUESTIONS

Action 264735

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 264735
	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	[fAPP2127031815] RED TANK 19 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 <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 within 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 > Third Party > USA Compression > Red Tank 26 Boo CS > Compression 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	72
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	20
Carbon Dioxide (CO2) percentage, if greater than one percent	5
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 Sulfide (H2S) PPM quality requirement	0
Carbon Dioxide (CO2) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0



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QUESTIONS, Page 2

Action 264735

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 264735
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	12/22/2022
Time vent or flare was discovered or commenced	09:11 PM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	3

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: 550 MCF   Recovered: 0 MCF   Lost: 550 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	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 compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, 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 owned and operated, Red Tank 26 Boo compressor station, was having issues with their compression equipment, which in turn, instigated a sudden and unexpected restriction of gas flow intake by them, which in turn, prompted Oxy's upstream facility, Red Tank 19 CTB, to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank 26 Boo compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.
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Steps taken to limit the duration and magnitude of vent or flare	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, third party owned and operated, Red Tank 26 Boo compressor station, was having issues with their compression equipment, which in turn, instigated a sudden and unexpected restriction of gas flow intake by them, which in turn, prompted Oxy's upstream facility, Red Tank 19 CTB, to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. The Oxy production tech, who was on-site, then contacted Oxy's personnel to begin making choke changes, so that field pressure would stay below the flare trigger setpoints of the Red Tank 19 CTB to cease flaring. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
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ACKNOWLEDGMENTS  
  
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	Action Number: 264735
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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: 264735
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CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	9/13/2023