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	Sampled By:	Michael Mirabal
Station Name:	Red Tank 19 CTB Train 2 Check	Sample Of:	Gas Spot
Station Number:	15622C	Sample Date:	12/13/2021 10:20
Station Location:	CTB	Sample Conditions:	92 psig, @ 76 °F Ambient: 53 °F
Sample Point:	Meter	Effective Date:	12/13/2021 10:20
Formation:	Monthly	Method:	GPA-2261M
County:	Lea, NM	Cylinder No:	5030-01624
Type of Sample: :	Spot-Cylinder	Instrument:	70142339 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	12/06/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	12/15/2021 11:24:15 by ERG
Sampling Company: :	SPL		

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	Total	C6+
Relative Density Real Gas	0.7978	3.2176
Calculated Molecular Weight	23.02	93.19
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 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: Lost Tank 18 CPF **Flare Date:** 09/08/2022

Duration of event: 3 Hours 20 Minutes **MCF Flared:** 138

Start Time: 03:20 PM **End Time:** 06:40 PM

Cause: Third party operated downstream facility > MPLX Preakness Gas Plant > Facility issues > High Discharge Pressure > Lost Tank 13 Boo CS > High Discharge Pressure > Lost Tank 18 CPF Compressor Malfunctions > Compression Equipment Shut Down

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 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 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 operated downstream facility, MPLX Preakness Gas Plant, had plant issues which affected the Lost Tank 18 CPF's operations and equipment. MPLX Preakness Gas Plant began to encounter liquid issues and requested Oxy personnel for rate cuts in the gas volume being sent to them, while they were also making remote automated adjustments with very little notice to Oxy to adjust their flow rates. MPLX made reduced intake adjustments before Oxy could cut back on new flowing wells, which in turn, prompted Lost Tank 13 BOO Compressor Station to go shutdown on high discharge pressure, which then triggered a flaring event to occur, with its stranded gas. This event could not have been avoided or prevented from happening as third party operated downstream facility, MPLX Preakness Gas Plant, began making intake flow gas reductions, while at the same time asking OXY personnel to adjust its outgoing gas flow rates, which takes time to adjust. This event is out of OXY's control yet, OXY made every effort to control and minimize emissions as much as possible

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 in order to lessen emissions as much as possible. In this case, third party operated downstream facility, MPLX Preakness Gas Plant, began to encounter liquid issues and requested Oxy personnel for rate cuts in the gas volume being sent to them, while they were also making remote automated adjustments with very little notice to Oxy to adjust their flow rates. MPLX made reduced intake adjustments before Oxy could cut back on new flowing wells, which in turn, prompted Lost Tank 13 BOO Compressor Station to go shutdown on high discharge pressure, which then triggered a flaring event to occur, with its stranded gas. Oxy production techs began to make phone calls to flowback well pads to choke wells and also contacting USA

compression to send its personnel to reset and restart compressors, which had malfunctioned and shutdown as a result of the high discharge pressure, which also affected the Lost Tank Boo 13 compressor station. After compression equipment was back online, Oxy production techs and flowback personnel kept making choke changes to stay within the flare setpoints of the CPF. Subsequent well surges initiated additional flaring instances during this event and more choke changes were made until such time as pressure stayed below the flare setpoint.

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 an MPLX Preakness Gas Plant restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid, prevent from happening or reoccurring. MPLX Preakness Gas Plant may have issues which will reoccur from time to time, and its subsequent actions to reduce, curtail and/or perform any type of adjustments to its incoming flow intake rates, will trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When MPLX Preakness Gas Plant has downstream activity issues or greatly struggles to handle the volume of gas being sent to them by Oxy, MPLX Preakness Gas Plant then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas to flare. 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 keep continually communicate with MPLX Preakness Gas Plant personnel during these types of situations.

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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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 146315
	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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QUESTIONS

Action 146315

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 146315
	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	*Not answered.*
Incident Facility	**[fAPP2226965761] Lost Tank 18 CPF**

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional 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, 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 **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 > Third party operated downstream facility > MPLX Preakness Gas Plant > Facility issues > High Discharge Pressure > Lost Tank 13 Boo CS > High Discharge Pressure > Lost Tank 18 CPF Compressor Malfunctions > Compression Equipment Shut Down

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 (C02) percentage, if greater than one percent	5
Oxygen (02) 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 Sufide (H2S) PPM quality requirement	*Not answered.*
Carbon Dioxide (C02) percentage quality requirement	*Not answered.*
Oxygen (02) percentage quality requirement	*Not answered.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 146315
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	09/08/2022
Time vent or flare was discovered or commenced	03:20 PM
Time vent or flare was terminated	06:40 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: 138 Mcf | Recovered: 0 Mcf | Lost: 138 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	Yes
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	[372098] MARATHON OIL PERMIAN LLC
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 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 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 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 operated downstream facility, MPLX Preakness Gas Plant, had plant issues which affected the Lost Tank 18 CPF's operations and equipment. MPLX Preakness Gas Plant began to encounter liquid issues and requested Oxy personnel for rate cuts in the gas volume being sent to them, while they were also making remote automated adjustments with very little notice to Oxy to adjust their flow rates. MPLX made reduced intake adjustments before Oxy could cut back on new flowing wells, which in turn, prompted Lost Tank 13 BOO Compressor Station to go shutdown on high discharge pressure, which then triggered a flaring event to occur, with its stranded gas. This event could not have been avoided or prevented from happening as third party operated downstream facility, MPLX Preakness Gas Plant, began making intake flow gas reductions, while at the same time asking OXY personnel to adjust its outgoing gas flow rates, which takes time to adjust. This event is out of OXY's control yet, 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	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 in order to lessen emissions as much as possible. In this case, third party operated downstream facility, MPLX Preakness Gas Plant, began to encounter liquid issues and requested Oxy personnel for rate cuts in the gas volume being sent to them, while they were also making remote automated adjustments with very little notice to Oxy to adjust their flow rates. MPLX made reduced intake adjustments before Oxy could cut back on new flowing wells, which in turn, prompted Lost Tank 13 BOO Compressor Station to go shutdown on high discharge pressure, which then triggered a flaring event to occur, with its stranded gas. Oxy production techs began to make phone calls to flowback well pads to choke wells and also contacting USA compression to send its personnel to reset and restart compressors, which had malfunctioned and shutdown as a result of the high discharge pressure, which also affected the Lost Tank Boo 13 compressor station. After compression equipment was back online, Oxy production techs and flowback personnel kept making choke changes to stay within the flare setpoints of the CPF. Subsequent well surges initiated additional flaring instances during this event and more choke changes were made until such time as pressure stayed below the flare setpoint.
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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 146315
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

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

Action 146315

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 146315
	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.	9/26/2022