Certificate of Analysis

Number: 6030-21120131-003A

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:	Mills Ranch	Sampled By:	Javier Lazo
Station Name:	Red Tank 27-28 CTB Test 2	Sample Of:	Gas Spot
Station Number:	16207T	Sample Date:	12/13/2021 10:24
Station Location:	CTB	Sample Conditions:	114 psig, @ 69 °F Ambient: 60 °F
Sample Point:	Meter	Effective Date:	12/13/2021 10:24
Formation:	Monthly	Method:	GPA-2261M
County:	Lea, NM	Cylinder No:	5030-04469
Type of Sample: :	Spot-Cylinder	Instrument:	70142339 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	12/13/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	12/15/2021 08:04:51 by ERG
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	2.642	2.65825	3.226	
Carbon Dioxide	3.583	3.60524	6.875	
Methane	70.128	70.55893	49.046	
Ethane	11.987	12.06063	15.713	3.220
Propane	6.826	6.86788	13.122	1.889
Iso-Butane	0.830	0.83541	2.104	0.273
n-Butane	2.099	2.11171	5.318	0.665
Iso-Pentane	0.403	0.40568	1.268	0.148
n-Pentane	0.415	0.41755	1.305	0.151
Hexanes	0.205	0.20656	0.771	0.085
Heptanes	0.172	0.17306	0.751	0.080
Octanes	0.080	0.08049	0.398	0.041
Nonanes Plus	0.019	0.01861	0.103	0.010
	99.389	100.00000	100.000	6.562

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.08	128.26
Compressibility Factor	0.9960	
Relative Density Real Gas	0.7998	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1254.7	6974.4
Water Sat. Gas Base BTU	1233.3	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1249.7	6974.4
Ideal, Gross HV - Wet	1227.8	6852.4

Comments: H2S Field Content 0 ppm
Mcf/day 4254.27

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 27-28 CTB

Flare Date: 02/08/2022

Duration of event: 2 Hours 9 minutes

MCF Flared: 252

Start Time: 02:09 PM

End Time: 04:18 PM

Cause: Downstream Activity Issue > DCP > DCP Linam Ranch > Facility Issues

Method of Flared Gas Measurement: Gas Flare Meter

Comments: This upset event was not caused by any wells associated with the facility. 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.

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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 downstream pipeline operator, which impacted Oxy's ability to send gas to a third-party downstream 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. In this case, there were two separate incidents where flaring occurred and in which OXY was not provided with advance notice, from DCP or DCP Linam Ranch that unexpected gas restrictions or constraints of their gas service pipeline would occur. DCP Linam Ranch gas plant was experiencing issues within their gas service pipeline system, due to hydrate issues which caused their HiLo valve to suddenly and unexpectedly shut down. DCP's unexpected and without warning shut down of their HiLo valve then instigated high discharge pressure to occur, which in turn caused Oxy's upstream facility, Red Tank 27-28 CTB, to high pressure up, on two separate occasions, triggering flare events, when Oxy was unable to push its gas into the DCP gas service system pipeline. As a result of the reduction in the gas intake volume from the DCP Linam Ranch gas plant, DCP's associating downstream facilities, then restricted their sales gas service system pipeline, also causing high discharge pressure to occur resulting in a constraint of the intake of gas from Oxy. This situation was out of OXY's control but OXY made every effort to control and minimize emissions as much as possible while DCP & DCP Linam Ranch was down and had restricted/constrained their gas service pipeline operations. All OXY compression equipment were running at maximized capacity with no issues until DCP and DCP Linam Ranch had facility and/or equipment issues due to hydrates which prompted their HiLo valve to shut down and subsequent restrictions/constraints of their pipeline service operations. OXY routed its stranded gas to flare until DCP/Linam Ranch was able to resume normal working operations and begin taking gas again. Flaring times: 02:09 PM to 03:58 PM and 05:00 PM to 05:20 PM.

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, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon notice of flaring, malfunction gas compressor unit and/or multiple unit shutdown alarms, increased sensor line pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, Oxy routed its stranded gas to flare, during both shut in episodes, until DCP was able to resume normal working service operations. During the first flaring incident, Oxy production techs quickly began to shut in multiple wells to minimize gas throughput to match and reduce flaring volumes until DCP has resolved their issues and remained on-site, as this is typically an unmanned facility, to ensure any additional issues were resolved diligently and efficiently. Oxy kept the wells shut in most of the day in the event a second shut in occurred unexpectedly, as it did so, around 05:00 PM. Oxy made every effort to shut in as much of production/wells as possible, yet it was absolutely critical to Oxy's operational safety and start up procedures to allow some production to occur at this facility, as it was necessary to maintain a minimal amount of gas flow to restart the facility's compression equipment, when DCP was ready and able to start taking gas. The minimal amount of gas flow allowed to be produced and flare was done out of necessity to protect personnel and equipment as a safeguard against potential issues that could occur when restarting production at the Red Tank 27-28 CTB facility.

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

Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a DCP sales gas service system pipeline constraint/restriction or shut in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening or reoccurring. DCP's downstream facility issues will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When DCP's downstream facility and/or its associating downstream facilities has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, DCP then restricts Oxy's ability to send gas, which then prompts Oxy to route its stranded gas not pushed into the DCP sales gas pipeline, to flare. OXY makes every effort to control and minimize emissions as much as possible. The limited reactive actions that Oxy can do in this circumstance is to shut in multiple high GOR wells to minimize gas throughput to match and reduce flaring volumes during this third party pipeline operator gas service pipeline shut in as well as continually communicate with DCP personnel throughout these type 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: 83847
	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 83847

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 83847
	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	**[fAPP2127030589] RED TANK 27-28 CTB**

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 > Downstream Activity Issue > DCP > DCP Linam Ranch > Facility 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	71
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	4
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: 83847
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	02/08/2022
Time vent or flare was discovered or commenced	02:09 PM
Time vent or flare was terminated	04:18 PM
Cumulative hours during this event	2

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: 252 Mcf | Recovered: 0 Mcf | Lost: 252 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	[229153] DCP MIDSTREAM L.P.
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	In this case, there were two separate incidents where flaring occurred and in which OXY was not provided with advance notice, from DCP or DCP Linam Ranch that unexpected gas restrictions or constraints of their gas service pipeline would occur. DCP Linam Ranch gas plant was experiencing issues within their gas service pipeline system, due to hydrate issues which caused their HiLo valve to suddenly and unexpectedly shut down. DCP's unexpected and without warning shut down of their HiLo valve then instigated high discharge pressure to occur, which in turn caused Oxy's upstream facility, Red Tank 27-28 CTB, to high pressure up, on two separate occasions, triggering flare events, when Oxy was unable to push its gas into the DCP gas service system pipeline. As a result of the reduction in the gas intake volume from the DCP Linam Ranch gas plant, DCP's associating downstream facilities, then restricted their sales gas service system pipeline, also causing high discharge pressure to occur resulting in a constraint of the intake of gas from Oxy. This situation was out of OXY's control but OXY made every effort to control and minimize emissions as much as possible while DCP & DCP Linam Ranch was down and had restricted/constrained their gas service pipeline operations. All OXY compression equipment were running at maximized capacity with no issues until DCP and DCP Linam Ranch had facility and/or equipment issues due to hydrates which prompted their HiLo valve to shut down and subsequent restrictions/constraints of their pipeline service operations. OXY routed its stranded gas to flare until DCP/Linam Ranch was able to resume normal working operations and begin taking gas again. Flaring times: 02:09 PM to 03:58 PM and 05:00 PM to 05:20 PM.
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, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon notice of flaring, malfunction gas compressor unit and/or multiple unit shutdown alarms, increased sensor line pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, Oxy routed its stranded gas to flare, during both shut in episodes, until DCP was able to resume normal working service operations. During the first flaring incident, Oxy production techs quickly began to shut in multiple wells to minimize gas throughput to match and reduce flaring volumes until DCP has resolved their issues and remained on-site, as this is typically an unmanned facility, to ensure any additional issues were resolved diligently and efficiently. Oxy kept the wells shut in most of the day in the event a second shut in occurred unexpectedly, as it did so, around 05:00 PM. Oxy made every effort to shut in as much of production/wells as possible, yet it was absolutely critical to Oxy's operational safety and start up procedures to allow some production to occur at this facility, as it was necessary to maintain a minimal amount of gas flow to restart the facility's compression equipment, when DCP was ready and able to start taking gas.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a DCP sales gas service system pipeline constraint/restriction or shut in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening or reoccurring. DCP's downstream facility issues will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When DCP's downstream facility and/or its associating downstream facilities has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, DCP then restricts Oxy's ability to send gas, which then prompts Oxy to route its stranded gas not pushed into the DCP sales gas pipeline, to flare. OXY makes every effort to control and minimize emissions as much as possible. The limited reactive actions that Oxy can do in this circumstance is to shut in multiple high GOR wells to minimize gas throughput to match and reduce flaring volumes during this third party pipeline operator gas service pipeline shut in as well as continually communicate with DCP personnel throughout these type of situations.

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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 83847
	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 83847

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 83847
	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.	2/23/2022