Certificate of Analysis

Number: 6030-20090208-001A

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

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

Sep. 25, 2020

Field:	N/A	Sampled By:	Javier Lazo
Station Name:	Amoco 21 Fed 1 Prod	Sample Of:	Gas Spot
Station Number:	14637P	Sample Date:	09/24/2020 09:10
Station Location:	OXY	Sample Conditions:	84.77 psia, @ 74.35 °F Ambient: 68 °F
Sample Point:	Meter Run	Effective Date:	09/24/2020 09:10
Formation:	Annual	Method:	GPA-2261M
County:	Lea	Cylinder No:	5030-03274
Type of Sample: :	Spot-Cylinder	Instrument:	70104124 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	09/15/2020 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	09/25/2020 12:41:50 by PGS
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Nitrogen	4.113	4.10956	4.902	
Carbon Dioxide	0.162	0.16228	0.304	
Methane	68.542	68.49131	46.783	
Ethane	13.402	13.39189	17.146	3.577
Propane	8.284	8.27807	15.542	2.277
Iso-Butane	1.078	1.07760	2.667	0.352
n-Butane	2.776	2.77385	6.865	0.873
Iso-Pentane	0.573	0.57218	1.758	0.209
n-Pentane	0.546	0.54520	1.675	0.197
Hexanes	0.279	0.27899	1.024	0.115
Heptanes	0.221	0.22074	0.942	0.102
Octanes	0.081	0.08054	0.392	0.041
Nonanes Plus	0.018	0.01779	NIL	NIL
	100.075	100.00000	100.000	7.743

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.49	NIL
Compressibility Factor	0.9957	
Relative Density Real Gas	0.8141	NIL
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1339.4	NIL
Water Sat. Gas Base BTU	1316.5	NIL
Ideal, Gross HV - Dry at 14.65 psia	1333.6	NIL
Ideal, Gross HV - Wet	1310.2	NIL

Comments: H2S Field Content 0 ppm
Mcf/day 156.60

Hydrocarbon Laboratory Manager

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

Scott Beasley

EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Amoco 21 Fed 1H CTB

Start Date: 05/25/2021 **End Date:** 05/25/2021

Cause: Downstream Activity Issue > Enterprise Chaparral Plant high line pressure issues

Duration of event: 4 hours **MCF Volume Flared:** 56

Method of Flared Gas Measurement: Flare Meter 6881701

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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 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. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enterprise, whose Enterprise Chaparral Plant, was having downstream facility issues that caused a spike in line pressure to the third-party gas gathering system, impacting Oxy's ability to send sales gas into the system from Oxy's Amoco 21 CTB. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in and once the line pressure was stabilized, Oxy was able to resume gas sales to the third-party gas gathering system.

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

Until Enterprise's Chaparral plant facility equipment was able to handle the volume of gas sent to them, the spike in line pressure forced Oxy's upstream facility to route stranded gas to a flare. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own equipment, when warranted, until Enterprise's Chaparral line pressure was back to normal.

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

During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own compression equipment, when

warranted, until Enterprise's Chaparral line pressure was back to normal. In addition, an effort was made to reduce the volume of gas to be flared by choking back wells with pressure control valves on the flowlines. Since this event was caused by a third-party high sales gas line pressure, Oxy is unable to eliminate the root cause of the issue. However, Oxy always takes steps to minimize the volume of gas flared by chocking back well production and maintaining contact with third party line operator to ensure that gas is safely directed back to sales as soon as the third-party line pressure returns to normal.

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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 42351

QUESTIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 42351
	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	**[30-025-40753] AMOCO 21 FEDERAL #001H**
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 addional 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, 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 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 flare due to third party.

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	68
Nitrogen (N2) percentage, if greater than one percent	4
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 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.*

Date(s) and Time(s)	
Date venting and/or flaring was discovered or commenced	05/25/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	04:00 AM
Cumulative hours during this event	4

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: 56 Mcf | Recovered: 0 Mcf | Lost: 56 Mcf]
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	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 or is this venting and/or flaring a result of downstream activity	*Not answered.*
Date notified of downstream activity requiring this venting and/or flaring	*Not answered.*
Time notified of downstream activity requiring this venting and/or flaring	*Not answered.*

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	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. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements. In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enterprise, whose Enterprise Chaparral Plant, was having downstream facility issues that caused a spike in line pressure to the third-party gas gathering system, impacting Oxy's ability to send sales gas into the system from Oxy's Amoco 21 CTB. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in and once the line pressure was stabilized, Oxy was able to resume gas sales to the third-party gas gathering system.
Steps taken to limit the duration and magnitude of venting and/or flaring	Until Enterprise's Chaparral plant facility equipment was able to handle the volume of gas sent to them, the spike in line pressure forced Oxy's upstream facility to route stranded gas to a flare. During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own equipment, when warranted, until Enterprise's Chaparral line pressure was back to normal.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	During this sudden and unexpected flaring event, OXY personnel continually monitored the Enterprise line pressure in order to make necessary adjustments to its own compression equipment, when warranted, until Enterprise's Chaparral line pressure was back to normal. In addition, an effort was made to reduce the volume of gas to be flared by choking back wells with pressure control valves on the flowlines. Since this event was caused by a third-party high sales gas line pressure, Oxy is unable to eliminate the root cause of the issue. However, Oxy always takes steps to minimize the volume of gas flared by chocking back well production and maintaining contact with third party line operator to ensure that gas is safely directed back to sales as soon as the third-party line pressure returns to normal.

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CONDITIONS

Action 42351

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Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 42351
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	8/16/2021