LABORATORY SERVICES Natural Gas Analysis
www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

C6+ Gas Analysis Report

Sample Point Code	Sample Point Name	Sample Point Location
11049G	NHU CTB Inlet	NHU CTB Inlet

Source Laboratory	Lab File No	Container Identity	Sampler
Laboratory Services	2021048599	0421	D Jett - Spot

District	Area Name	Field Name	Facility Name
USA	USA	USA	New Mexico

Date Sampled	Date Effective	Date Received	Date Reported
Nov 22, 2021 09:20	Nov 22, 2021 09:20	Nov 22, 2021 15:49	Nov 23, 2021

Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
56.00		System Administrator	40 @ 80

Operator	Lab Source Description
Oxy	NG

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	1.8000	1.8	
Nitrogen (N2)	0.0940	0.096	
CO2 (CO2)	91.8670	93.552	
Methane (C1)	1.3750	1.4	
Ethane (C2)	0.2500	0.254	0.0670
Propane (C3)	1.0280	1.047	0.2830
I-Butane (IC4)	0.3200	0.326	0.1050
N-Butane (NC4)	0.9180	0.935	0.2890
I-Pentane (IC5)	0.5360	0.546	0.1960
N-Pentane (NC5)	0.4910	0.5	0.1780
Hexanes Plus (C6+)	1.3210	1.345	0.5730
TOTAL	100.0000	101.8010	1.6910

Method(s): Gas C6+ - GPA 2261, Extended Gas - GPA 2286, Calculations - GPA 2172

Analyzer Information

Device Type:	Gas Chromatograph	Device Make:	Shimadzu
Device Model:	GC-2014	Last Cal Date:	Nov 14, 2021

Gross Heating Values (Real, BTU/ft³)

14.696 PSI @ 60.00 Â°F		14.73 PSI @ 60.00 Â°F	
Dry	Saturated	Dry	Saturated
205.6	203.000	206.1	203.5

Calculated Total Sample Properties

GPA2145-16 *Calculated at Contract Conditions

Relative Density Real	Relative Density Ideal
1.5464	1.5368

Molecular Weight: 44.5106

C6+ Group Properties

Assumed Composition

C6 - 60.000% C7 - 30.000% C8 - 10.000%

Field H2S: 18000 PPM

PROTREND STATUS:
Passed By Validator on Nov 24, 2021

DATA SOURCE:
Imported

PASSED BY VALIDATOR REASON:
Close enough to be considered reasonable.

VALIDATOR:
Dustin Armstrong

VALIDATOR COMMENTS:
OK

1	Reason why this event was beyond Operator's control:
	Oxy engages in respectable and good facility operation practices while also maintaining its continuous equipment preventative maintenance program. Internal OXY procedures ensure that upon a gas compressor unit shutdown, production techs are promptly notified via an equipment alarm notification app and are trained to respond immediately in order to assess the issue as soon as possible, so that prompt corrective actions are taken to minimize emissions. Oxy production techs must assess whether a gas compressor unit shutdown is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, **The North Plant RCF lost their F-train compressor. This caused our battery to pressure up and our Toromont compressor could not keep up and went down on high high discharge pressure. The plant was having trouble getting their train back online so we had to begin shutting in wells in order to bring the inlet pressure down far enough for our compressor to run**

2	Steps Taken to limit duration and magnitude of venting or flaring:
	It is OXY's policy to route all stranded sales gas to a flare during a sudden, 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. Notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable and unexpected which can cause compression malfunctions to occur, thereby, triggering the unit’s sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components.

	In this case, the steps taken to limit duration and magnitude of flaring was for the Oxy production tech to curtail wells in the field until the Plant could get their compressor restarted .

3	**Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:**
	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 or prevented by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during a sudden, 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. Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical 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 its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events.

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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: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 245132
	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 245132

QUESTIONS

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	Action Number: 245132
	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	*Unavailable.*
Incident Facility	**[fJXK1521644806] North Hobbs Unit 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	Producing Well
Additional details for Equipment Involved. Please specify	*Not answered.*

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	0
Nitrogen (N2) percentage, if greater than one percent	0
Hydrogen Sulfide (H2S) PPM, rounded up	1
Carbon Dioxide (C02) percentage, if greater than one percent	80
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)

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	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	07/12/2023
Time vent or flare was discovered or commenced	03:35 PM
Time vent or flare was terminated	06:39 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: Equipment Failure | Producing Well | Natural Gas Flared | Released: 93 Mcf | Recovered: 0 Mcf | Lost: 93 Mcf.
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	a C-141 was submitted for the release of the CO2 that was mixed with this flared gas nAPP2320829172
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	*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 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 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. Notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms and/or failures, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur, thereby, triggering the unit's sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components. The North Plant RCF lost their F-train compressor. This caused our battery to pressure up and our Toromont compressor could not keep up and went down on high high discharge pressure. The plant was having trouble getting their train back online so we had to begin shutting in wells in order to bring the inlet pressure down far enough for our compressor to run
Steps taken to limit the duration and magnitude of vent or flare	It is OXY's policy to route all 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 gas compressor unit and/or multiple unit shutdown, increased sensor 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 .Oxy curtailed well to minimize flaring.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms and/or failures, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur, thereby, triggering the unit's sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components. Oxy continually strives to maintain and operate its facility and its equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. The only actions that Oxy can take and handle that is within its control, is to continue with its preventative maintenance program for this facility and its compression equipment.

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ACKNOWLEDGMENTS

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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 245132

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	Action Number: 245132
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CONDITIONS

Created By	Condition	Condition Date
srojas	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.	7/27/2023