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

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: North Hobbs Unit CTB

Flare Date: 01/07/2022

Duration of event: 8 Hours 1 Minutes

MCF Flared: 713

Start Time: 01:32 AM

End Time: 09:33 AM

Cause: Compressor Malfunctions > Equipment Malfunction

Method of Flared Gas Measurement: Gas Flare Meter

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

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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 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. This gas compressor is engineered to shutdown at a certain maximum speeds, temperature, and pressure capacity in order to avoid both catastrophic damage to the compressor. In this case, compressor LP 4500 unit #1 malfunctioned due to the unit's breaker failed on heat trace that was on the suction control transmitter, which kept the unit from fully loading and subsequently triggered an automatically shut down. The facility equipment and the units were insulated, and heat traced in advance, as part of Oxy's winter weather preparations. All OXY operations and facility equipment were running at maximized optimization prior to the malfunction which prompted the compressor unit to shut down. The facility and all its equipment were working as designed and operated normally prior to the sudden and without warning malfunction.

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

The steps taken to limit duration and magnitude of flaring was for an Oxy production tech to quickly respond to the compressor malfunction alarm and begin inspecting the unit, diagnose the issue, and make the necessary adjustments to restart the unit back to normal working service. It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. Internal procedures ensure that upon compressor unit shutdown, OXY production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. Upon arrival, an Oxy production tech must assess whether compressor shutdown is due to damage and repair is needed, or whether there are other reasons. In this case, it did take some time for field personnel to arrive at this facility, as this is an unmanned facility. Upon arrival, the Oxy production tech performed a visual inspection of the malfunctioned compressor units and finding an issue with the breaker and the heat trace, the production tech called for an automation/electrical technician to come out and immediately repair the faulty breaker and heat trace. One the issues were resolved the unit was restarted and returned to normal working operations.

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

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, 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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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: 74772
	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:

- 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 74772

QUESTIONS

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	Action Number: 74772
	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	**[157984] OCCIDENTAL PERMIAN LTD**
Incident Type	**Flare**
Incident Status	**Closure Not Approved**
Incident Well	*Not answered.*
Incident Facility	**[fJXK1521644806] North Hobbs Unit 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 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	Yes
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 **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 > Compressor Malfunctions > Equipment Malfunction

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	1
Nitrogen (N2) percentage, if greater than one percent	0
Hydrogen Sulfide (H2S) PPM, rounded up	18,000
Carbon Dioxide (C02) percentage, if greater than one percent	92
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: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 74772
	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	01/07/2022
Time vent or flare was discovered or commenced	01:32 AM
Time vent or flare was terminated	09:33 AM
Cumulative hours during this event	8

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: 713 Mcf | Recovered: 0 Mcf | Lost: 713 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	*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. This gas compressor is engineered to shutdown at a certain maximum speeds, temperature, and pressure capacity in order to avoid both catastrophic damage to the compressor. In this case, compressor LP 4500 unit #1 malfunctioned occurred due to extreme freezing weather conditions, at or below zero degrees, which caused the unit's breaker to fail on heat trace that was on the suction control transmitter, which kept the unit from fully loading and subsequently triggered an automatically shut down. The facility equipment and the units were insulated, and heat traced in advance, as part of Oxy's winter weather preparations. All OXY operations and facility equipment were running at maximized optimization prior to the malfunction which prompted the compressor unit to shut down. The facility and all its equipment were working as designed and operated normally prior to the sudden and without warning malfunction.
Steps taken to limit the duration and magnitude of vent or flare	The steps taken to limit duration and magnitude of flaring was for an Oxy production tech to quickly respond to the compressor malfunction alarm and begin inspecting the unit, diagnose the issue, and make the necessary adjustments to restart the unit back to normal working service. It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. Internal procedures ensure that upon compressor unit shutdown, OXY production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. Upon arrival, an Oxy production tech must assess whether compressor shutdown is due to damage and repair is needed, or whether there are other reasons. In this case, due the extreme weather conditions, it did take some time for field personnel to arrive at this facility, as this is an unmanned facility. Upon arrival, the Oxy production techs performed a visual inspection of the malfunctioned compressor units and finding an issue with the breaker and the heat trace, the production tech called for an automation/electrical technician to repair the faulty break and heat trace. One the issues were resolved the unit was restarted and returned to normal working operations.
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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☑	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.
☑	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.
☑	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.
☑	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 74772

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CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	1/24/2022