RCF Flare Gas Analysis -

C6+ GAS / VAPOR FRACTIONAL ANALYSIS

SAMPLE ID	
Customer	Occidental Permian Ltd.
Meter Number	1013
Meter Name	NHRCF/Plant Inlet
Tester ID	Pantechs/CJC
Witness ID	
Effective Date	12/1/18
Effective Time	8:00:00 AM
Sample Date	12/21/18
Sample Time	11:15:00 AM
Analysis Date	12/27/18
Pressure	296
Temperature	0
Sample Cyl No	PL943

COMPONENT	SYM	MOL %	WT %	GPM
Nitrogen	N2	1.670	1.114	0.183
Carbon Dioxide	CO2	84.677	88.748	14.440
Field Hyd. Sulf.	H2S	1.134	0.920	0.153
Oxygen	O2	-----	-----	-----
Helium	He	-----	-----	-----
Hydrogen	H2	-----	-----	-----
Argon	Ar	-----	-----	-----
Methane	C1	7.566	2.891	1.283
Ethane	C2	1.226	0.878	0.328
Propane	C3	1.582	1.661	0.436
i-Butane	iC4	0.264	0.365	0.086
n-Butane	nC4	0.616	0.853	0.194
i-Pentane	iC5	0.294	0.505	0.108
n-Pentane	nC5	0.268	0.460	0.097
Hexanes+	C6+	0.703	1.605	0.302
	Totals:	100.000	100.000	17.610

DISTRIBUTION

Occidental Permian Ltd. (email)

- James Capps; Denver City, TX
- Jimmy Dobson; Midland, TX
- John Dorow; Denver City, TX
- Chauncia Farayola; Denver City, TX
- Christopher Frei; Denver City, TX
- Mario Guerrero; Denver City, TX
- James King; Hobbs, NM
- Chip Mitchell; Denver City, TX
- Casey Morris; Sundown, TX
- Jaime Perez; Denver City, TX
- Kenley Powell; Denver City, TX
- Judy Rich; Sundown, TX
- Richard Sanders; Sundown, TX
- Greg Vencil; Sundown, TX
- Janell Wilson; Hobbs, NM
- Erica Zuniga; Denver City, TX

GASOLINE CONTENT (GPM)

Ethane & Heavier	2.834
Propane & Heavier	1.223
Butanes & Heavier	0.787
Pentanes & Heavier	0.507
26# Gasoline	0.755

HEATING VALUE (Gross Btu/CF)

Ideal, Dry	232.39
Ideal, WV Saturated	229.20
Real, Dry	233.78
Real, WV Saturated	230.67

CALCULATIONS / METHODS

Pressure Base, PSIA	14.65
Temp Base, DEG F	60
Ideal/Real Gas	Real

APPLICABLE CURRENT GPA & ASTM METHODS, PROCEDURES, AND CONSTANTS ARE USED

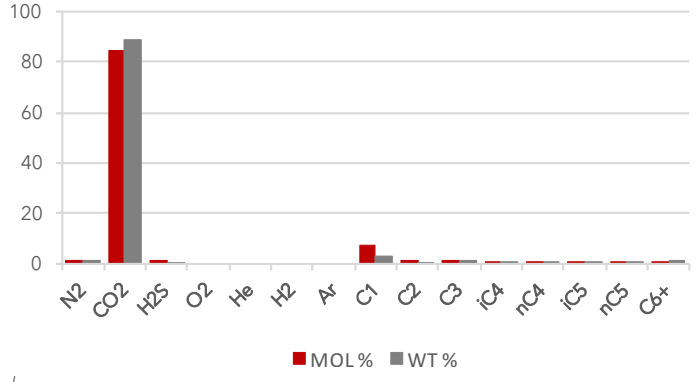
CALC. PROPERTIES	SG	Z	MW
Dry	1.458	0.994	41.991
Water Saturated	1.444	0.994	41.571

Wobbe Index, Real	193.61

REMARKS / COMMENTS / OTHER

- Erica Zuniga; Denver City, TX

RELATIVE CONCENTRATION



UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: North Hobbs Unit RCF **Flare Date:** 06/24/2021

Duration of Event: 57 Minutes **MCF Flared:** 109

Start Time: 01:02 AM **End Time:** 01:59 AM

Cause: Emergency Flare > Well Train "D" Compression Malfunction > Compression Motor Failure

Method of Flared Gas Measurement: Gas Flare Meter

Comments: Per NMOCD's directive, this incident is being reported with a C-129 form rather than the originally submitted C-141.

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. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible. In this case, this flaring event was a sudden and unexpected malfunction resulting from the well "D" train compressor, which shutdown automatically when the malfunction alarm was triggered due to a motor failure. Notwithstanding proper well train gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause well train malfunctions to occur without warning or advance notice. Prior to the flaring incident occurring, plant operations and machinery were operating at peak optimization levels. Oxy plant personnel quickly responded to the flaring incident by taking measures to lessen and control the amount of gas directed to the flare, by drastically cutting the production input to the plant. All plant operations and its equipment were working normally and as intended prior to the well train compression malfunction occurring. Oxy makes every effort to resolve these types of equipment issues as quickly as possible and to minimize the environmental impact of flaring. This flaring circumstance is beyond the control of OXY to avoid and prevent, yet, Oxy took all possible measures to reduce emissions effectively.

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

OXY's protocol dictates that in the event of an unplanned and unavoidable emergency or malfunction, beyond Oxy's capacity to prevent, anticipate, or control, its stranded gas should be directed towards a flare to reduce emissions to the greatest extent feasible as a measure among others aimed at curtailing the duration and impact of the flare event. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, this flaring event was a sudden and unexpected malfunction resulting from the well "D" train compressor, which shutdown automatically when the malfunction alarm was triggered due to a motor failure. Notwithstanding proper well train gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause well train malfunctions to occur without warning or advance notice. As soon as flaring was triggered, steps were immediately taken by the Oxy plant personnel to reduce and mitigate the volume of gas being sent to flare by reducing production going into the plant, until flaring ceased. Extra plant personnel swiftly took action by examining the unexpected malfunctioning compressor unit on the well "D" train and worked to reset the alarm but were unable to. An electrician was then promptly requested to diagnose and fix the problem. Successfully, the electrician identified the fault and rectified the issue on the compressor unit

by exchanging the synchronizing wheel on the motor, after which the well "D" train compressor was reinstated to operational status. All plant operations and its equipment were working normally and as intended prior to the well train compression malfunction occurring. Oxy makes every effort to resolve these types of equipment issues as quickly as possible and to minimize the environmental impact of flaring. This flaring circumstance is beyond the control of OXY to avoid and prevent, yet, Oxy took all possible measures to reduce emissions effectively.

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

Oxy is limited in its ability to take any corrective actions to eliminate the cause and potential reoccurrence of well train compressor malfunctions as notwithstanding proper well train 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. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its plant operations equipment preventative maintenance program for this facility.

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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: 376351
	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 376351

QUESTIONS

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 376351
	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	**[fKJ1517634129] NORTH HOBBS RECOMPRESSION FACILITY & GAS PLANT**

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 > Well Train “D” Compression Malfunction > Compression Motor Failure

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	8
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	11,340
Carbon Dioxide (C02) percentage, if greater than one percent	85
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: 376351
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	06/24/2021
Time vent or flare was discovered or commenced	01:02 AM
Time vent or flare was terminated	01:59 AM
Cumulative hours during this event	1

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: 109 Mcf | Recovered: 0 Mcf | Lost: 109 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. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible. In this case, this flaring event was a sudden and unexpected malfunction resulting from the well "D" train compressor, which shutdown automatically when the malfunction alarm was triggered due to a motor failure. Notwithstanding proper well train gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause well train malfunctions to occur without warning or advance notice. Prior to the flaring incident occurring, plant operations and machinery were operating at peak optimization levels. Oxy plant personnel quickly responded to the flaring incident by taking measures to lessen and control the amount of gas directed to the flare, by drastically cutting the production input to the plant. All plant operations and its equipment were working normally and as intended prior to the well train compression malfunction occurring. Oxy makes every effort to resolve these types of equipment issues as quickly as possible and to minimize the environmental impact of flaring. This flaring circumstance is beyond the control of OXY to avoid and prevent, yet, Oxy took all possible measures to reduce emissions effectively.

Steps taken to limit the duration and magnitude of vent or flare	OXY's protocol dictates that in the event of an unplanned and unavoidable emergency or malfunction, beyond Oxy's capacity to prevent, anticipate, or control, its stranded gas should be directed towards a flare to reduce emissions to the greatest extent feasible as a measure among others aimed at curtailing the duration and impact of the flare event. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, this flaring event was a sudden and unexpected malfunction resulting from the well "D" train compressor, which shutdown automatically when the malfunction alarm was triggered due to a motor failure. Notwithstanding proper well train gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause well train malfunctions to occur without warning or advance notice. As soon as flaring was triggered, steps were immediately taken by the Oxy plant personnel to reduce and mitigate the volume of gas being sent to flare by reducing production going into the plant, until flaring ceased. Extra plant personnel swiftly took action by examining the unexpected malfunctioning compressor unit on the well "D" train and worked to reset the alarm but were unable to. An electrician was then promptly requested to diagnose and fix the problem. Successfully, the electrician identified the fault and rectified the issue on the compressor unit by exchanging the synchronizing wheel on the motor, after which the well "D" train compressor was reinstated to operational status. All plant operations and its equipment were working normally and as intended prior to the well train compression malfunction occurring. Oxy makes every effort to resolve these types of equipment issues as quickly as possible and to minimize the environmental impact of flaring. This flaring circumstance is beyond the control of OXY to avoid and prevent, yet, Oxy too
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in its ability to take any corrective actions to eliminate the cause and potential reoccurrence of well train compressor malfunctions as notwithstanding proper well train 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. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its plant operations equipment preventative maintenance program for this facility.

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ACKNOWLEDGMENTS

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	Action Number: 376351
	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

Operator: OCCIDENTAL PERMIAN LTD P.O. Box 4294 Houston, TX 772104294	OGRID: 157984
	Action Number: 376351
	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.	8/21/2024