AKM Measurement Services, LLC
Carlsbad, New Mexico

AKM MEASUREMENT SERVICES,LLC. Natural Gas Analysis Report
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	LOST TANK 5 CPF PRODUCTION 1
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	05-14-2024
Meter Number	118610
Air temperature	86
Flow Rate (MCF/Day)	18398
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	LOST TANK 5 CPF PRODUCTION 1
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM, OXY USA INC
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	GOLD LOG
FLOC	OP-DELNE-BT011
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	005153
Sampled by	SCOTT
Sample date	5-8-2024
Analyzed date	5-16-2024
Method Name	C9
Injection Date	2024-05-16 09:30:10
Report Date	2024-05-16 09:48:43
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	e393afe2-09b5-4406-a3d0-061d007a58c6
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	31553.6	1.8134	0.00005747	1.8077	0.0	0.01748	0.200	
Methane	946787.9	68.7129	0.00007257	68.4947	693.4	0.37939	11.668	
CO2	3918.6	0.1863	0.00004754	0.1857	0.0	0.00282	0.032	
Ethane	310560.6	14.3199	0.00004611	14.2745	253.2	0.14820	3.836	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	237031.2	7.7279	0.00003260	7.7034	194.3	0.11728	2.133	
iso-butane	90753.1	1.0103	0.00001113	1.0071	32.8	0.02021	0.331	
n-Butane	253628.9	2.8085	0.00001107	2.7996	91.5	0.05618	0.887	
iso-pentane	85196.1	0.8413	0.00000987	0.8386	33.6	0.02089	0.308	
n-Pentane	113493.3	1.0762	0.00000948	1.0728	43.1	0.02672	0.391	
hexanes	115435.0	1.1481	0.00000995	1.1445	54.6	0.03405	0.473	
heptanes	92413.0	0.5631	0.00000609	0.5613	31.0	0.01942	0.260	
octanes	20131.0	0.1083	0.00000538	0.1080	6.8	0.00426	0.056	
nonanes+	724.0	0.0021	0.00000291	0.0021	0.1	0.00009	0.001	
Total:		100.3183		100.0000	1434.4	0.84701	20.576	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	100.3183		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	115.0		

Result	Dry	Sat.
Flowing Pressure (psia)	95.6	
Gross Heating Value (BTU / Ideal cu.ft.)	1434.4	1409.4
Gross Heating Value (BTU / Real cu.ft.)	1441.7	1417.3
Relative Density (G), Real	0.8510	0.8474

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	100.3183	97.0000	103.0000	Pass

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Lost Tank 5 CPF

Flare Date: 10/13/2024

Duration of Event: 1 Hour 40 Minutes

MCF Flared: 351

Start Time: 05:00 AM

End Time: 06:40 AM

Cause: Emergency LP Flare > Equipment Malfunctions > VRU's

Method of Flared Gas Measurement: Gas Flare Meter

1. Reason why this event was beyond Operator's control:

The emissions were caused by the sudden, 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 maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this situation, high pressure VRU units simultaneously and unexpectedly malfunctioned due to a low oil level in the oil exchanger, which triggered the low oil switch. This low oil switch activation led the VRUs to automatically shut down, causing excess gas from the tanks to overwhelm the VRTs. Consequently, VRU units #2 and 6 also malfunctioned due to a HIHI suction alarm and subsequently shut down automatically. Prior to the flaring incident occurring, all OXY operations and VRU's were operating at peak optimization levels. This flaring situation was beyond OXY's control, but Oxy took all possible measures to reduce emissions effectively.

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

It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this situation, high pressure VRU units #1, 3, 4, and 5 simultaneously and unexpectedly malfunctioned due to a low oil level in the oil exchanger, which triggered the low oil switch. This low oil switch activation led the VRUs to automatically shut down, causing excess gas from the tanks to overwhelm the VRTs. Consequently, VRU units #2 and 6 also malfunctioned due to a HIHI suction alarm and subsequently shut down automatically. Prior to the flaring incident occurring, all OXY operations and VRU's were operating at peak optimization levels. Steps were immediately taken to reduce and mitigate the volume of gas being sent to the flare by inspecting the VRU equipment and then restarting some of the VRU units until the third-party vendor who maintenance's the units could arrive to the facility to replenish the oil. A minimal of gas from the facility's VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU's could be restarted and returned to normal maximized operation.

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

Oxy's ability to take corrective action to prevent and address malfunctions in a VRU is limited. Despite proper design and operation of the VRU, whether it be low- or high-pressure, unexpected mechanical or technical issues can arise without warning and are often unforeseeable, leading to without warning equipment malfunctions.

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District IV
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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

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 396521
	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 396521

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 396521
	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	**[fAPP2410600153] Lost Tank 5 Tankless CPF**

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 LP Flare > Equipment Malfunctions > VRU's

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	2
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.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 396521
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/13/2024
Time vent or flare was discovered or commenced	05:00 AM
Time vent or flare was terminated	06:40 AM
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: 351 Mcf | Recovered: 0 Mcf | Lost: 351 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 were caused by the sudden, 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 maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this situation, high pressure VRU units simultaneously and unexpectedly malfunctioned due to a low oil level in the oil exchanger, which triggered the low oil switch. This low oil switch activation led the VRUs to automatically shut down, causing excess gas from the tanks to overwhelm the VRTs. Consequently, VRU units #2 and 6 also malfunctioned due to a HIHI suction alarm and subsequently shut down automatically. Prior to the flaring incident occurring, all OXY operations and VRU's were operating at peak optimization levels. This flaring situation was beyond OXY's control, but Oxy took all possible measures to reduce emissions effectively.
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Steps taken to limit the duration and magnitude of vent or flare	which triggered the low oil switch. This low oil switch activation led the VRUs to automatically shut down, causing excess gas from the tanks to overwhelm the VRTs. Consequently, VRU units #2 and 6 also malfunctioned due to a HIHI suction alarm and subsequently shut down automatically. Prior to the flaring incident occurring, all OXY operations and VRU's were operating at peak optimization levels. Steps were immediately taken to reduce and mitigate the volume of gas being sent to the flare by inspecting the VRU equipment and then restarting some of the VRU units until the third-party vendor who maintenance's the units could arrive to the facility to replenish the oil. A minimal of gas from the facility's VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU's could be restarted and returned to normal maximized operation.
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ACKNOWLEDGMENTS

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	Action Number: 396521
	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

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	Action Number: 396521
	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.	10/28/2024