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	RED TANK 27-28 CTB PRODUCTION
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	02-16-2024
Meter Number	16211P
Air temperature	40
Flow Rate (MCF/Day)	11943
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	RED TANK 27-28 CTB PRODUCTION
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM, OXY USA INC
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	RED TANK
FLOC	OP-L2152-BT002
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	38932
Sampled by	SCOTT
Sample date	2-13-2024
Analyzed date	2-18-2024
Method Name	C9
Injection Date	2024-02-18 17:14:52
Report Date	2024-02-18 17:19:30
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	39fcbadc-1e76-48bb-83b0-021ad2e296d3
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	31522.3	1.8194	0.00005772	1.8171	0.0	0.01757	0.201	
Methane	993454.8	72.4026	0.00007288	72.3140	732.1	0.40055	12.306	
CO2	37290.3	1.7783	0.00004769	1.7761	0.0	0.02699	0.304	
Ethane	283731.7	13.0755	0.00004608	13.0595	231.6	0.13558	3.506	
H2S	0.0	0.0003	0.00000000	0.0003	0.0	0.00000	0.000	
Propane	215565.6	7.0475	0.00003269	7.0389	177.5	0.10717	1.947	
iso-butane	75495.5	0.8374	0.00001109	0.8363	27.3	0.01678	0.275	
n-Butane	181664.6	2.0044	0.00001103	2.0019	65.5	0.04017	0.633	
iso-pentane	36619.5	0.3588	0.00000980	0.3584	14.4	0.00893	0.132	
n-Pentane	40549.4	0.3813	0.00000940	0.3808	15.3	0.00949	0.139	
hexanes	24734.0	0.2424	0.00000980	0.2421	11.5	0.00720	0.100	
heptanes	20881.0	0.1239	0.00000594	0.1238	6.8	0.00428	0.057	
octanes	9317.0	0.0482	0.00000517	0.0481	3.0	0.00190	0.025	
nonanes+	1103.0	0.0027	0.00000244	0.0027	0.2	0.00012	0.002	
Total:		100.1227		100.0000	1285.2	0.77674	19.625	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	100.1227		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	63.4		

Result	Dry	Sat.
Flowing Pressure (psia)	106.7	
Gross Heating Value (BTU / Ideal cu.ft.)	1285.2	1262.8
Gross Heating Value (BTU / Real cu.ft.)	1290.3	1268.4
Relative Density (G), Real	0.7795	0.7772

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	100.1227	97.0000	103.0000	Pass

UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Red Tank 27-28 CTB

Vent Date: 04/09/2024

Duration of Event: 17 Hours

MCF Vented: 60

Start Time: 12:00 AM

End Time: 05:00 PM

Cause: Equipment Malfunction > Production Separator > Water Dump

Method of Vented Gas Measurement: Estimated Vent Calculations

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

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 could not have been avoided by good design, operation, and maintenance practices. Notwithstanding common facility design and operations, emergencies and malfunctions, can occur without warning, be sudden, unforeseeable and unavoidable. It is OXY's policy to route all gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet there are circumstances when flaring is not possible, and venting shall occur. In this case, the production separator water dump washed out, which in turn, sent excess fluids to the facility's gun barrel, which then triggered intermittent venting to occur. Once the production tech was able to determine the cause of the excess fluids being sent to the gun barrel, which was the production separator, the production tech was able to isolate the production separator and attempt to determine an exact cause of the equipment malfunction. The production tech determined the water dump needed to be replaced. Once the water dump was replaced, which took time to retrieve and install, the excess fluids were prevented from flowing to the gun barrel and venting was terminated.

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

In this case, the production separator water dump washed out , which in turn, sent excess fluids to the facility's gun barrel, which then triggered intermittent venting to occur. Once the production tech was able to determine the cause of the excess fluids being sent to the gun barrel, which was the production separator, the production tech was able to isolate the production separator and attempt to determine an exact cause of the equipment malfunction. The production tech determined the water dump needed to be replaced. Once the water dump was replaced, which took time to retrieve and install, the excess fluids were prevented from flowing to the gun barrel and venting was terminated.

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 production separator malfunctions as notwithstanding production separator design and operations, separators are inherently dynamic and even the smallest type of malfunctions, false or true, can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur and cause a process flow to be interrupted or redirected to other facility equipment, unknowingly, which in turn can cause venting to occur. OXY makes every effort to control and minimize emissions as much as possible. The actions that Oxy and its field personnel will continue to perform is its daily inspections of its 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: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 357317
	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 357317

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 357317
	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 ID (n#)	*Unavailable.*
Incident Name	*Unavailable.*
Incident Type	**Vent**
Incident Status	*Unavailable.*
Incident Facility	**[fAPP2127030589] RED TANK 27-28 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, 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	Equipment Malfunction > Production Separator > Water Dump

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	72
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	3
Carbon Dioxide (C02) percentage, if greater than one percent	2
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (02) percentage quality requirement	0

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
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	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	04/09/2024
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	05:00 PM
Cumulative hours during this event	17

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other | Other (Specify) | Natural Gas Vented | Released: 60 MCF | Recovered: 0 MCF | Lost: 60 MCF.
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	Estimated Vent Calculations
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	No
Downstream OGRID that should have notified this operator	0
Date notified of downstream activity requiring this vent or flare	
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	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 could not have been avoided by good design, operation, and maintenance practices. Notwithstanding common facility design and operations, emergencies and malfunctions, can occur without warning, be sudden, unforeseeable and unavoidable. It is OXY's policy to route all gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet there are circumstances when flaring is not possible, and venting shall occur. In this case, the production separator water dump washed out, which in turn, sent excess fluids to the facility’s gun barrel, which then triggered intermittent venting to occur. Once the production tech was able to determine the cause of the excess fluids being sent to the gun barrel, which was the production separator, the production tech was able to isolate the production separator and attempt to determine an exact cause of the equipment malfunction. The production tech determined the water dump needed to be replaced. Once the water dump was replaced, which took time to retrieve and install, the excess fluids were prevented from flowing to the gun barrel and venting was terminated.
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Steps taken to limit the duration and magnitude of vent or flare	barrel, which was the production separator, the production tech was able to isolate the production separator and attempt to determine an exact cause of the equipment malfunction. The production tech determined the water dump needed to be replaced. Once the water dump was replaced, which took time to retrieve and install, the excess fluids were prevented from flowing to the gun barrel and venting was terminated.
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 production separator malfunctions as notwithstanding production separator design and operations, separators are inherently dynamic and even the smallest type of malfunctions, false or true, can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur and cause a process flow to be interrupted or redirected to other facility equipment, unknowingly, which in turn can cause venting to occur. OXY makes every effort to control and minimize emissions as much as possible. The actions that Oxy and its field personnel will continue to perform is its daily inspections of its equipment.

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ACKNOWLEDGMENTS

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	Action Number: 357317
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 357317

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	Action Number: 357317
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	6/25/2024