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	CYPRESS 34 CTB B TEST 7 - CYPRESS 34 FED 242H
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	04-06-2023
Meter Number	18927T
Air temperature	43
Flow Rate (MCF/Day)	
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	CYPRESS 34 CTB B TEST 7 - CYPRESS 34 FED 242H
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	WEST
FLOC	OP-L3818-BT003
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	3982
Sampled by	JONATHAN ALDRICH
Sample date	4-9-2023
Analyzed date	4-10-2023
Method Name	C9
Injection Date	2023-04-10 08:43:49
Report Date	2023-04-10 08:48:25
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	9e57e681-2584-42bf-baae-767dc0d2d1d1
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	22241.9	1.2564	0.00005649	1.2654	0.0	0.01224	0.140	
Methane	1041990.0	76.0783	0.00007301	76.6208	775.7	0.42440	13.036	
CO2	2083.8	0.0980	0.00004701	0.0987	0.0	0.00150	0.017	
Ethane	260448.6	11.8731	0.00004559	11.9578	212.1	0.12415	3.209	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	181193.9	5.9001	0.00003256	5.9422	149.9	0.09047	1.643	
iso-butane	71810.3	0.7954	0.00001108	0.8011	26.1	0.01608	0.263	
n-Butane	171258.9	1.8727	0.00001093	1.8861	61.7	0.03785	0.597	
iso-pentane	42248.9	0.4068	0.00000963	0.4097	16.4	0.01021	0.150	
n-Pentane	49935.0	0.4697	0.00000941	0.4730	19.0	0.01178	0.172	
hexanes	37196.0	0.2799	0.00000753	0.2819	13.4	0.00839	0.116	
heptanes	29054.0	0.1788	0.00000615	0.1801	9.9	0.00623	0.083	
octanes	13109.0	0.0727	0.00000555	0.0733	4.6	0.00289	0.038	
nonanes+	1584.0	0.0098	0.00000621	0.0099	0.7	0.00044	0.006	
Total:		99.2918		100.0000	1289.5	0.74662	19.470	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	99.2918		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	73.0		
Flowing Pressure (psia)	125.0		
Gross Heating Value (BTU / Ideal cu.ft.)	1289.5	1267.1	
Gross Heating Value (BTU / Real cu.ft.)	1294.5	1272.5	

Result	Dry	Sat.	
Relative Density (G), Real	0.7492	0.7473	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.2918	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Cypress 34B CTB

Flare Date: 05/11/2023

Duration of event: 15 Hours

MCF Flared: 52

Start Time: 09:00 AM

End Time: 11:59 PM

Cause: Emergency Flare > Equipment Malfunction > VRU > VFD Fault

Method of Flared Gas Measurement: Gas Flare Meter

Comments: *Date of discovery for this event by Air Quality Team was May 15, 2023.*

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. Oxy production techs must assess and determine cause of flaring at its upstream facility. In this case, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flare was done out of necessity to protect personnel and equipment as a safeguard.

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 case, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. Production techs who responded to the malfunction alarms were unable to resolve the VRU malfunction as the VFD fault would not clear. A repair work order was submitted. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.

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

Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a malfunctioning VRU, as notwithstanding proper VRU, design and operation, whether low- or high-pressure, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. OXY makes every effort to control and minimize emissions as much as possible during these circumstances. The limited actions that Oxy can do in this circumstance is to submit a work order for repair, work with its equipment maintenance team to have the issue resolved in a timely manner and continue monitoring the equipment until its repair and restoration to normal operations is complete.

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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: 222029
	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 222029

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 222029
	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	**[fAPP2306227007] Cypress 34-B 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	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	Emergency Flare > Equipment Malfunction > VRU > VFD Fault

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	77
Nitrogen (N2) percentage, if greater than one percent	1
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)

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	Action Number: 222029
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/11/2023
Time vent or flare was discovered or commenced	09:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	15

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: 52 Mcf | Recovered: 0 Mcf | Lost: 52 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. Oxy production techs must assess and determine cause of flaring at its upstream facility. In this case, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flare was done out of necessity to protect personnel and equipment as a safeguard.
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, 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 case, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. Production techs who responded to the malfunction alarms were unable to resolve the VRU malfunction as the VFD fault would not clear. A repair work order was submitted. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.
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ACKNOWLEDGMENTS

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	Action Number: 222029
	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

Action 222029

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 222029
	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.	5/30/2023