



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 19 TRAIN 1 CHECK
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	11-30-2023
Meter Number	15621C
Air temperature	49
Flow Rate (MCF/Day)	32366
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	RED TANK 19 TRAIN 1 CHECK
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-L2151-BT001
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	38941
Sampled by	SCOTT
Sample date	11-28-2023
Analyzed date	12-5-2023
Method Name	C9
Injection Date	2023-12-05 18:37:39
Report Date	2023-12-05 18:38:54
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	9dfaa108-0bff-4ae0-adaf-99715e055520
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	37137.5	2.1143	0.00005693	2.1096	0.0	0.02040	0.233
Methane	998952.1	72.8514	0.00007293	72.6904	735.9	0.40263	12.368
CO2	62419.4	2.9606	0.00004743	2.9541	0.0	0.04489	0.506
Ethane	264187.4	12.1480	0.00004598	12.1212	215.0	0.12584	3.253
H2S	0.0	0.0010	0.00000000	0.0010	0.0	0.00001	0.000
Propane	195769.5	6.3996	0.00003269	6.3854	161.0	0.09722	1.766
iso-butane	67992.2	0.7554	0.00001111	0.7538	24.6	0.01513	0.248
n-Butane	165592.6	1.8272	0.00001103	1.8232	59.6	0.03659	0.577
iso-pentane	35506.8	0.3492	0.00000984	0.3485	14.0	0.00868	0.128
n-Pentane	38457.7	0.3633	0.00000945	0.3625	14.6	0.00903	0.132
hexanes	25756.0	0.2539	0.00000986	0.2533	12.1	0.00754	0.105
heptanes	23951.0	0.1451	0.00000606	0.1448	8.0	0.00501	0.067
octanes	9287.0	0.0503	0.00000541	0.0501	3.1	0.00198	0.026
nonanes+	573.0	0.0021	0.00000360	0.0021	0.1	0.00009	0.001
Total:		100.2213		100.0000	1248.0	0.77504	19.409

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	100.2213	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
	75.5	

Result	Dry	Sat.
Flowing Pressure (psia)	129.7	
Gross Heating Value (BTU / Ideal cu.ft.)	1248.0	1226.3
Gross Heating Value (BTU / Real cu.ft.)	1252.8	1231.5
Relative Density (G), Real	0.7777	0.7754

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	100.2213	97.0000	103.0000	Pass

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Red Tank 19 CTB

Flare Date: 01/16/2024

Duration of Event: 16 Hours 27 Minutes

MCF Flared: 54

Start Time: 07:32 AM

End Time: 11:59 PM

Cause: Emergency LP Flare > Equipment Malfunctions > VRU's 1 & 4

Method of Flared Gas Measurement: Gas Flare Meter

Comments: This event was discovered by AQT on January 22, 2024.

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 case, sales gas had to be flared rather than be compressed when VRU# 1 & 4, repeatedly, would suddenly and unexpectedly shut down on mechanical malfunction alarms, continuously within a 24-hour period. 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. This event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.

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 VRU# 1 & 4, repeatedly, would suddenly and unexpectedly shut down on mechanical malfunction alarms, continuously within a 24-hour period. 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, during each sudden and without warning recurring instance of a malfunction alarm. Oxy production techs responded in a timely manner, during each malfunction alarm and proceeded to inspect the VRU's, then attempted to clear the malfunctions and restart the VRU's. After several attempts to restart the VRU's with no success, Oxy production techs called HYBON, a third-party vendor specializing in VRU equipment, to dispatch a mechanic to resolve the VRU's malfunctions. HYBON mechanics were unable to respond in a timely manner due to an already heavy workload in the area and were unable to arrive until hours later or the next day, after each request for service. Once the HYBON mechanics arrived on-site to resolve the VRU's issues, the equipment was restarted. HYBON is aware that the VRU's are continuously malfunctioning due to internal parts requiring replacements, but they are unable to replace or adjust them currently as they are waiting for parts on their end.

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 immediately contacts HYBON to make repairs and is subject to their availability and expertise to make repairs. 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 immediately call for a VRU mechanic, submit a work order for repair, and/or 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

Action 311885

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 311885
	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 311885

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	Action Number: 311885
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites	
<i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	Unavailable.
Incident Facility	[fAPP2127031815] RED TANK 19 CTB

Determination of Reporting Requirements	
<i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
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.
<i>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.</i>	
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 within 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 1 & 4

Representative Compositional Analysis of Vented or Flared Natural Gas	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	73
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	10
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 311885

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 311885
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/17/2024
Time vent or flare was discovered or commenced	02:30 PM
Time vent or flare was terminated	10:30 PM
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: 204 Mcf Recovered: 0 Mcf Lost: 204 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 interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had one or more gas compressors shut down due to compression issues, which in turn resulted in a sudden and unexpected restriction of gas flow intake by them on several occasions, which then caused Oxy's Red Tank 19 CTB to pressure up automatically and trigger intermittent flaring events to occur. This event could not have been foreseen, avoided or prevented from happening as each flaring instance occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank 26 Boo compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.
	It is OXY's policy to route its 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

<p>Steps taken to limit the duration and magnitude of vent or flare</p>	<p>minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. In this case, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had one or more gas compressors shut down due to compression issues, which in turn resulted in a sudden and unexpected restriction of gas flow intake by them on several occasions, which then caused Oxy's Red Tank 19 CTB to pressure up automatically and trigger intermittent flaring events to occur. The Oxy production techs, who were on-site, continually kept in touch with additional Oxy field personnel to make adjustments to injection rate changes, to minimize emissions during USA Compressions' attempts to resolve their equipment issues, which took longer than usual to resolve due to their own mechanics were busy at other locations. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.</p>
<p>Corrective actions taken to eliminate the cause and reoccurrence of vent or flare</p>	<p>Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank Boo 26 Compressor Station, when possible, during these types of circumstances.</p>

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ACKNOWLEDGMENTS
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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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 311885

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	Action Number: 311885
	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.	2/6/2024