

**Volumetrics Inc.**

3710 East Rio Grande St, Victoria, TX-77901
Phone: 361-827-4024

Company: OXY USA INC
Field/Location : NMSW
Station Name : CEDAR CANYON TO ENTERPRISE
Station Number : NA
Sample Date: 3/10/22 2:40 PM
Analysis Date: 3/17/22 8:30 PM
Instrument: INFICON
Calibration/Verification Date: 3/17/2022
Heat Trace used: YES

Work Order: 4000535215
Sampled by: OXY/JE
Sample Type : SPOT-CYLINDER
Sample Temperature (F): NA
Sample Pressure (PSIG): 1237
Flow rate (MCF/Day): NA
Ambient Temperature (F): 50
Sampling method: FILL & EMPTY
Cylinder Number: 27772

NATURAL GAS ANALYSIS: GPA 2261

Components	Un-Normalized Mol%	Normalized Mol%	GPM 14.650	GPM 14.730	GPM 15.025
Hydrogen Sulfide	0.0000	0.0000			
Nitrogen	1.4010	1.4329			
Methane	73.2835	74.9537			
Carbon Dioxide	0.1272	0.1301			
Ethane	12.0004	12.2739	3.277	3.295	3.361
Propane	6.1002	6.2392	1.716	1.726	1.760
Isobutane	0.8643	0.8840	0.289	0.290	0.296
N-butane	2.1629	2.2122	0.696	0.700	0.714
Isopentane	0.5139	0.5256	0.192	0.193	0.197
N-Pentane	0.5755	0.5886	0.213	0.214	0.218
Hexanes(C6's)	0.3556	0.3637	0.149	0.150	0.153
Heptanes (C7's)	0.2741	0.2804	0.129	0.130	0.132
Octanes (C8's)	0.1001	0.1024	0.052	0.053	0.054
Nonanes Plus (C9+)	0.0130	0.0133	0.007	0.008	0.008
Total	97.7718	100.0000			
Physical Properties (Calculated)			14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+			6.721	6.758	6.893
Total GPM Iso-Pentane+			0.743	0.747	0.762
Compressibility (Z)			0.9959	0.9959	0.9958
Specific Gravity (Air=1) @ 60 °F			0.7713	0.7713	0.7714
Molecular Weight			22.257	22.257	22.257
Gross Heating Value			14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft ³)			1318.1	1325.3	1352.0
Wet, Real (BTU/Ft ³)			1295.0	1302.1	1328.3
Dry, Ideal (BTU/Ft ³)			1312.7	1319.9	1346.3
Wet, Ideal (BTU/Ft ³)			1289.7	1296.8	1322.7

Temperature base 60 °F

Comment: FIELD H2S =0 PPM

Verified by

Mostaq Ahammad
Petroleum Chemist

Approved by

Deann Friend

Deann Friend
Laboratory Manager

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Cedar Canyon CDP**Flare Date:** 07/07/2022**Duration of event:** 2 Hours 30 Minutes**MCF Flared:** 493**Start Time:** 03:00 PM**End Time:** 05:30 PM**Cause:** Compressor Malfunction > Detonation**Method of Flared Gas Measurement:** Gas Flare Meter

Comments: This upset event was not caused by any wells associated with the facility. 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 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. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program.

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

In this case, the Dimension 6 CTB Section 8 CS facility's gas compressor automatically shut down on detonation and the gas lift optimizer had an error, which didn't cut injection rates, which in turn, pressured up the field and triggered a flaring event. A malfunction alarm and automatic shutdown of the compressor unit can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc. As it pertains to this event, the sudden and reasonably unforeseeable malfunction occurred due to the unit shut down on a mechanical detonation due to the extreme hot temperatures changing the fuel ratio of the unit. A compressor mechanic was called out to troubleshoot the issue, yet, the repair of the optimizer, which had an error, took much longer than expected to fix. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and very unexpected, which can cause compressor unit malfunctions to occur without warning or advance notice. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. This gas compressor unit was working as designed and operated normally prior to the sudden and without warning detonation malfunction of the compressor unit. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared 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, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown alarms, increased sensor pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize

emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, the Dimension 6 CTB Section 8 CS facility's gas compressor automatically shut down on detonation and the gas lift optimizer had an error, which didn't cut injection rates, which in turn, pressured up the field and triggered a flaring event. A malfunction alarm and automatic shutdown of the compressor unit can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc. As it pertains to this event, the sudden and reasonably unforeseeable malfunction occurred due to the unit shut down on a mechanical detonation due to the extreme hot temperatures changing the fuel ratio of the unit. A compressor mechanic was called out to troubleshoot the issue, yet, the repair of the optimizer, which had an error, took much longer than expected to fix. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and very unexpected, which can cause compressor unit malfunctions to occur without warning or advance notice. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. This gas compressor unit was working as designed and operated normally prior to the sudden and without warning detonation malfunction of the compressor unit. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. 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 the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper 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 keep continue with its compression equipment preventative maintenance program for this unit at the Dimension 6 CTB Section 8 CS.

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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

Action 128170

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 128170
	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 128170

QUESTIONS

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	Action Number: 128170
	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	Not answered.
Incident Facility	[fAPP2126642450] CEDAR CANYON ETP CDP

Determination of Reporting Requirements

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional 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 > Compressor Malfunction > Detonation

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	75
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) 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 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 128170

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	07/07/2022
Time vent or flare was discovered or commenced	03:00 PM
Time vent or flare was terminated	05:30 PM
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: 493 Mcf Recovered: 0 Mcf Lost: 493 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	In this case, the Dimension 6 CTB Section 8 CS facility's gas compressor automatically shut down on detonation and the gas lift optimizer had an error, which didn't cut injection rates, which in turn, pressured up the field and triggered a flaring event. A malfunction alarm and automatic shutdown of the compressor unit can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc. As it pertains to this event, the sudden and reasonably unforeseeable malfunction occurred due to the unit shut down on a mechanical detonation due to the extreme hot temperatures changing the fuel ratio of the unit. A compressor mechanic was called out to troubleshoot the issue, yet, the repair of the optimizer, which had an error, took much longer than expected to fix. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and very unexpected, which can cause compressor unit malfunctions to occur without warning or advance notice. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. This gas compressor unit was working as designed and operated normally prior to the sudden and without warning detonation malfunction of the compressor unit. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared 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	In this case, the Dimension 6 CTB Section 8 CS facility's gas compressor automatically shut down on detonation and the gas lift optimizer had an error, which didn't cut injection rates, which in turn, pressured up the field and triggered a flaring event. A malfunction alarm and automatic shutdown of the compressor unit can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc. As it pertains to this event, the sudden and reasonably unforeseeable malfunction occurred due to the unit shut down on a mechanical detonation due to the extreme hot temperatures changing the fuel ratio of the unit. A compressor mechanic was called out to troubleshoot the issue, yet, the repair of the optimizer, which had an error, took much longer than expected to fix. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and very unexpected, which can cause compressor unit malfunctions to occur without warning or advance notice. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. This gas compressor unit was working as designed and operated normally prior to the sudden and without warning detonation malfunction of the compressor unit. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. 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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ACKNOWLEDGMENTS

☒	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.
☒	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 128170

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	Action Number: 128170
	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.	7/22/2022