



Volumetrics Inc.

3710 East Rio Grande St, Victoria, TX-77901

Phone: 361-827-4024

Company: OXY USA INC
Field/Location : NMSW
Station Name : SALT FLAT CTB TRAIN 1 CHECK (FMP)
Station Number : 18721C
Sample Date: 10/5/21 10:30 AM
Analysis Date: 10/20/21 11:30 AM
Instrument: INFICON
Calibration/Verification Date: 10/20/2021
Heat Trace used: YES

Work Order: 4000384486
Sampled by: VOLUMETRICS/RA
Sample Type : SPOT-CYLINDER
Sample Temperature (F): 88.46
Sample Pressure (PSIG): 94.13
Flow rate (MCF/Day): 12580.33
Ambient Temperature (F): 75
Sampling method: FILL & EMPTY
Cylinder Number: 5041

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	1.1952	1.2204			
Methane	74.4627	76.0342			
Carbon Dioxide	0.0987	0.1008			
Ethane	11.7520	12.0000	3.203	3.221	3.286
Propane	6.0070	6.1337	1.687	1.696	1.730
Isobutane	0.7768	0.7932	0.259	0.261	0.266
N-butane	1.9443	1.9853	0.625	0.628	0.641
Isopentane	0.4497	0.4592	0.168	0.169	0.172
N-Pentane	0.5265	0.5376	0.195	0.196	0.200
Hexanes(C6's)	0.3402	0.3474	0.143	0.143	0.146
Heptanes (C7's)	0.2526	0.2580	0.119	0.119	0.122
Octanes (C8's)	0.1087	0.1110	0.057	0.057	0.058
Nonanes Plus (C9+)	0.0188	0.0192	0.011	0.011	0.011
Total	97.9332	100.0000			

Physical Properties (Calculated)

	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.466	6.502	6.632
Total GPM Iso-Pentane+	0.692	0.696	0.709
Compressibility (Z)	0.9961	0.9960	0.9960
Specific Gravity (Air=1) @ 60 °F	0.7602	0.7603	0.7603
Molecular Weight	21.940	21.940	21.940

Gross Heating Value

	14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft ³)	1305.1	1312.4	1338.7
Wet, Real (BTU/Ft ³)	1282.3	1289.4	1315.2
Dry, Ideal (BTU/Ft ³)	1300.0	1307.1	1333.3
Wet, Ideal (BTU/Ft ³)	1277.3	1284.3	1310.0

Temperature base 60 °F

Comment: FIELD H2S =0 PPM

Verified by

Mostaq Ahammad
 Petroleum Chemist

Approved by

Deann Friend
 Laboratory Manager

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Salt Flat CTB**Flaring Date:** 10/01/2021**Duration of event:** 30 Minutes**MCF Flared:** 450**Start Time:** 09:30 AM**End Time:** 10:00 AM**Cause:** Equipment Failure > Automated Back Pressure Valve > Communication Failure**Method of Flared Gas Measurement:** Gas Flare Meter**Well API Associated with Facility:** 30-015-45080 Salt Flat CC 20 29 Federal Com #031H

Comments: This event could not have been foreseen, prevented, avoided or planned for as issues with equipment and/or breakdowns shall recur from time to time without warning and could not have been avoided by good design, operation, and preventative maintenance practices.

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

In this case, this event was caused was by a sudden and unexpected malfunction of the automated back pressure valves, which is a vital piece of equipment, connecting the gas lines between the production facility and the flare line. The malfunction of the automated back pressure valve occurred as a result of an automated communication failure initiated during a severe lightning weather storm, which impacted the facility's electrical panel system. The communication failure caused the facility's air compressor to route gas directly to the flare line, instead of the sales gas production line where it is then pushed through to the Salt Flats compressor station, where it typically routes its gas through. As this is a manned facility, the production tech on-site immediately noticed flaring, and quickly attempted to determine cause and resolve the issues. Once it was determined that there was a malfunction of the back pressure valves, due a communication failure from the control panel to the automated pressure valves and gas was being routed incorrectly from the gas compressors, the Oxy production immediately began to manually operate the back pressure valves and route the gas back to the sales gas production line, which in turn ceased flaring.

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 at this location and 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, this event was caused was by a sudden and unexpected malfunction of the automated back pressure valves, which is a vital piece of equipment, connecting the gas lines between the production facility and the flare line. The malfunction of the automated back pressure valve occurred as a result of an automated communication failure initiated during a severe lightning weather storm, which impacted the facility's electrical panel system. The communication failure caused the facility's air compressor to route gas directly to the flare line, instead of the sales gas production line where it is then pushed through to the Salt Flats compressor station, where it typically routes its gas through.

As this is a manned facility, the production tech on-site immediately noticed flaring, and quickly attempted to determine cause and resolve the issues. Once it was determined that there was a malfunction of the back pressure valves, due a communication failure from the control panel to the automated pressure valves and gas was being routed incorrectly from the gas compressors, the Oxy production immediately began to manually operate the back pressure valves and route the gas back to the sales gas production line, which in turn ceased flaring. OXY was unable to prevent, foresee or avoid this event from happening as this was an unforeseeable and unanticipated malfunction brought on by severe weather affecting the facility's equipment and operations. OXY made every effort to control and minimize emissions as much as possible while the issue was resolved.

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 operational equipment 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 facility equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control to attempt to prevent this circumstance from happening again, is to continue with its daily facility equipment visual inspections and equipment preventative maintenance program.

District I

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District II

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District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
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

QUESTIONS

Action 58346

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 58346
	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	[fAPP2126563666] SALT FLAT CTB

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 or is this venting and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a venting and/or flaring 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 or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/or flaring 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 venting and/or flaring 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 Failure > Automated Back Pressure Valve > Communication Failure

Representative Compositional Analysis of Vented or Flared Natural Gas

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

Methane (CH4) percentage	76
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.

Date(s) and Time(s)

Date venting and/or flaring was discovered or commenced	10/01/2021
Time venting and/or flaring was discovered or commenced	09:30 AM
Time venting and/or flaring was terminated	10:00 AM
Cumulative hours during this event	0

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: Other Other (Specify) Natural Gas Flared Released: 450 Mcf Recovered: 0 Mcf Lost: 450 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 or is this venting and/or flaring a result of downstream activity	No
Was notification of downstream activity received by you or your operator	Not answered.
Downstream OGRID that should have notified you or your operator	Not answered.
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/or flaring	Not answered.

Steps and Actions to Prevent Waste	
For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your operator's control	In this case, this event was caused was by a sudden and unexpected malfunction of the automated back pressure valves, which is a vital piece of equipment, connecting the gas lines between the production facility and the flare line. The malfunction of the automated back pressure valve occurred as a result of an automated communication failure initiated during a severe lightning weather storm, which impacted the facility's electrical panel system. The communication failure caused the facility's air compressor to route gas directly to the flare line, instead of the sales gas production line where it is then pushed through to the Salt Flats compressor station, where it typically routes its gas through. As this is a manned facility, the production tech on-site immediately noticed flaring, and quickly attempted to determine cause and resolve the issues. Once it was determined that there was a malfunction of the back pressure valves, due a communication failure from the control panel to the automated pressure valves and gas was being routed incorrectly from the gas compressors, the Oxy production immediately began to manually operate the back pressure valves and route the gas back to the sales gas production line, which in turn ceased flaring.
Steps taken to limit the duration and magnitude of venting and/or flaring	In this case, this event was caused was by a sudden and unexpected malfunction of the automated back pressure valves, which is a vital piece of equipment, connecting the gas lines between the production facility and the flare line. The malfunction of the automated back pressure valve occurred as a result of an automated communication failure initiated during a severe lightning weather storm, which impacted the facility's electrical panel system. The communication failure caused the facility's air compressor to route gas directly to the flare line, instead of the sales gas production line where it is then pushed through to the Salt Flats compressor station, where it typically routes its gas through. As this is a manned facility, the production tech on-site immediately noticed flaring, and quickly attempted to determine cause and resolve the issues. Once it was determined that there was a malfunction of the back pressure valves, due a communication failure from the control panel to the automated pressure valves and gas was being routed incorrectly from the gas compressors, the Oxy production immediately began to manually operate the back pressure valves and route the gas back to the sales gas production line, which in turn ceased flaring. OXY was unable to prevent, foresee or avoid this event from happening as this was an unforeseeable and unanticipated malfunction brought on by severe weather affecting the facility's equipment and operations. OXY made every effort to control and minimize emissions as much as possible while the issue was resolved.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper operational equipment 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 facility equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control to attempt to prevent this circumstance from happening again, is to continue with its daily facility equipment visual inspections and equipment preventative maintenance program.

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	Action Number: 58346
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna	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.	10/28/2021