



## Volumetrics Inc.

3710 East Rio Grande St, Victoria, TX-77901

Phone: 361-827-4024

**Company:** OXY USA INC  
**Field/Location :** NMSW  
**Station Name :** CORRAL 1 COMP STATION ENERGY TRANSFER CHECK  
**Station Number :** 18000C  
**Sample Date:** 2/23/22 9:45 AM  
**Analysis Date:** 3/7/22 12:45 PM  
**Instrument:** INFICON  
**Calibration/Verification Date:** 3/7/2022  
**Heat Trace used:** YES

**Work Order** 4000424956  
**Sampled by:** OXY/JE  
**Sample Type :** SPOT-CYLINDER  
**Sample Temperature (F):** 93  
**Sample Pressure (PSIG):** 1230  
**Flow rate (MCF/Day):** 16257  
**Ambient Temperature (F):** 23  
**Sampling method:** FILL & EMPTY  
**Cylinder Number:** 27764

## 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	1.4221	1.4522			
Methane	74.0532	75.6211			
Carbon Dioxide	0.1772	0.1809			
Ethane	12.0085	12.2627	3.273	3.291	3.357
Propane	6.0764	6.2050	1.706	1.716	1.750
Isobutane	0.8466	0.8645	0.282	0.284	0.290
N-butane	1.9936	2.0358	0.641	0.644	0.657
Isopentane	0.4162	0.4250	0.155	0.156	0.159
N-Pentane	0.4438	0.4532	0.164	0.165	0.168
Hexanes Plus	0.4893	0.4996	0.218	0.219	0.223
<b>Total</b>	<b>97.9269</b>	<b>100.0000</b>			

Hexanes plus split (60%-30%-10%)

Physical Properties (Calculated)	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.440	6.475	6.604
Total GPM Iso-Pentane+	0.537	0.540	0.550
Compressibility (Z)	0.9961	0.9961	0.9960
Specific Gravity ( Air=1 ) @ 60 °F	0.7562	0.7562	0.7563
Molecular Weight	21.826	21.826	21.826
<b>Gross Heating Value</b>	<b>14.650 psia</b>	<b>14.730 psia</b>	<b>15.025 psia</b>
Dry, Real (BTU/Ft <sup>3</sup> )	1293.2	1300.3	1326.4
Wet, Real (BTU/Ft <sup>3</sup> )	1270.7	1277.6	1303.3
Dry, Ideal (BTU/Ft <sup>3</sup> )	1288.2	1295.2	1321.2
Wet, Ideal (BTU/Ft <sup>3</sup> )	1265.8	1272.7	1298.2

Temperature base 60 °F

**Comment:** FIELD H2S =0 PPM

## Verified by

Mostaq Ahammad  
Petroleum Chemist

## Approved by

Deann Friend  
Laboratory Manager

**UPSET VENT EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Corral 1S CS**Vent Date:** 03/31/2023**Duration of event:** 16 Hours 4 minutes**MCF Vented:** 189**Start Time:** 12:45 AM**End Time:** 04:49 PM**Cause:** Equipment Malfunction > VRU > Compressor Fault**Method of Flared Gas Measurement:** Vent Calculations**Comments:**

---

**1. Reason why this event was beyond 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 downstream pipeline operator, which impacted Oxy's ability to send gas to a third-party downstream gas pipeline. This interruption, restriction, or complete shut-in of the gas pipeline by a thirdparty pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to 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, the VRU went down on compressor VFR fault which prompted a malfunction alarm. While the VRU was down, the tank pressure rose above the venting threshold for the thief hatches on top of the tanks, which then triggered the tanks to vent for a very brief period and prompting a low-level vent malfunction alarm.

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

Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, increased sensor pressure alarms, tank vent alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible 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. This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. In this case, an Oxy production tech was near the facility when the VRU malfunction alarm was received and quickly arrived at the facility to inspect and troubleshoot the issue. The Oxy production tech immediately inspected the VRU and finding no issue or repairs needing to be done, simply cleared the malfunction alarms, and restarted the VRU. Once the VRU achieved maximized operation, did venting immediately cease from the tanks. Oxy production techs were working during their regular shift hours. However, internal policy is that when alarms sound indicating compressor shutdown, regardless of off-shift or overtime, priority is to respond/ assess/repair/restart compressors and/or equipment, if applicable.

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

Oxy is limited in the corrective actions to eliminate the cause and reoccurrence of venting in this type of equipment malfunction as notwithstanding normal equipment design and operation, emergencies, and malfunctions, can occur without warning, be sudden, unforeseeable, and unavoidable. In addition, field operation equipment is inherently dynamic and even the smallest mechanical issue can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning. Oxy continually strives to maintain and operate in a manner consistent with good practice for minimizing emissions and reducing the number of emission events. It is OXY's policy to flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet, in this circumstance, a sudden and unexpected equipment malfunction caused venting to occur, which was unavoidable. OXY made every effort to control and minimize emissions as much as possible during this sudden and unexpected venting event.

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**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**

DEFINITIONS

Action 208139

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 208139
	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: <ul style="list-style-type: none"><li>• this application's operator, hereinafter "this operator";</li><li>• venting and/or flaring, hereinafter "vent or flare";</li><li>• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>• the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>• and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul>
--

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**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 208139

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	208139
	Action Type:	[C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

<b>Prerequisites</b>	
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	[fAPP2126641362] CORRAL #1 COMP STATION

<b>Determination of Reporting Requirements</b>	
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	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

<b>Equipment Involved</b>	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Equipment Malfunction > VRU > Compressor Fault

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b>	
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 (C02) 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 Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**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, Page 2

Action 208139

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 208139
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	03/31/2023
Time vent or flare was discovered or commenced	12:45 AM
Time vent or flare was terminated	04:49 PM
Cumulative hours during this event	16

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Vented   Released: 189 Mcf   Recovered: 0 Mcf   Lost: 189 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	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	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 downstream pipeline operator, which impacted Oxy's ability to send gas to a third-party downstream gas pipeline. This interruption, restriction, or complete shut-in of the gas pipeline by a thirdparty pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to 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, the VRU went down on compressor VFR fault which prompted a malfunction alarm. While the VRU was down, the tank pressure rose above the venting threshold for the thief hatches on top of the tanks, which then triggered the tanks to vent for a very brief period and prompting a low-level vent malfunction alarm.
Steps taken to limit the duration and magnitude of vent or flare	Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, increased sensor pressure alarms, tank vent alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible 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. This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. In this case, an Oxy production tech was near the facility when the VRU malfunction alarm was received and quickly arrived at the facility to inspect and troubleshoot the issue. The Oxy production tech immediately inspected the VRU and finding no issue or repairs needing to be done, simply cleared the malfunction alarms, and restarted the VRU. Once the VRU achieved maximized operation, did venting immediately cease from the tanks. Oxy production techs were working during their regular shift hours. However, internal policy is that when alarms sound indicating compressor shutdown, regardless of off-shift or overtime, priority is to respond/ assess/repair/restart compressors and/or equipment, if applicable.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions to eliminate the cause and reoccurrence of venting in this type of equipment malfunction as notwithstanding normal equipment design and operation, emergencies, and malfunctions, can occur without warning, be sudden, unforeseeable, and unavoidable. In addition, field operation equipment is inherently dynamic and even the smallest mechanical issue can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning. Oxy continually strives to maintain and operate in a manner consistent with good practice for minimizing emissions and reducing the number of emission events. It is OXY's policy to flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet, in this circumstance, a sudden and unexpected equipment malfunction caused venting to occur, which was unavoidable. OXY made every effort to control and minimize emissions as much as possible during this sudden and unexpected venting event.

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**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**

ACKNOWLEDGMENTS  
  
Action 208139

**ACKNOWLEDGMENTS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 208139
	Action Type: [C-129] Venting and/or Flaring (C-129)

**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 <b>complete</b> 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.

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**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

CONDITIONS

Action 208139

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 208139
	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.	4/16/2023