

### Volumetrics Inc.

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

 Company:
 OXY USA INC
 Work Order:
 4000535215

 Field/Location:
 NMSW
 Sampled by:
 OXY/JE

 Station Name :
 CEDAR CANYON TO ENTERPRISE
 Sample Type :
 SPOT-CYLINDER

 Station Number :
 NA
 Sample Temperature (F):
 NA

 Sample Date:
 3/10/22 2:40 PM
 Sample Pressure (PSIG):
 1237

 Analysis Date:
 3/17/22 8:30 PM
 Flow rate (MCF/Day):
 NA

 Instrument:
 INFICON
 Ambient Temperature (F):
 50

 Calibration/Verification Date:
 3/17/2022
 Sampling method:
 FILL & EMPTY

Heat Trace used: YES Cylinder Number: 27772

# NATURAL GAS ANALYSIS: GPA 2261

|                    | <b>Un-Normalized</b> | Normalized | GPM    | GPM    | GPM    |
|--------------------|----------------------|------------|--------|--------|--------|
| Components         | Mol%                 | Mol%       | 14.650 | 14.730 | 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 <sup>3</sup> )  | 1318.1      | 1325.3      | 1352.0      |
| Wet, Real (BTU/Ft <sup>3</sup> )  | 1295.0      | 1302.1      | 1328.3      |
| Dry, Ideal (BTU/Ft <sup>3</sup> ) | 1312.7      | 1319.9      | 1346.3      |
| Wet, Ideal (BTU/Ft <sup>3</sup> ) | 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 Laboratory Manager

### **UPSET VENT EVENT SPECIFIC JUSTIFICATIONS FORM**

Facility: Cedar Canyon 28-4 CTB Date: 12/26/2022

**Duration of event:** 11 Hours 56 Minutes **MCF Vented:** 160

Start Time: 01:57 AM End Time: 11:59 PM

**Cause:** Venting > VRU > Malfunctions > Scrubber Drain Line

**Method of Gas Measurement:** Estimated 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 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. In this case, VRU #1 malfunctioned several times due to operational issues with the drain line, which caused the unit to shut down on a high scrubber liquid level malfunction as a result of extreme weather conditions and temperatures, affecting the unit. Field personnel upon discovery of the VRU's malfunctioning, which caused unexpected venting to occur, then in turn, began making arrangements to drain the scrubber line throughout the day. 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 quickly, safely and diligently.

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

This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walkthroughs to ensure that there are no equipment issues, circumstances and/or assist other personnel on-site for maintenance/operational purposes. It is OXY's policy to route all stranded sales gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible, as part of the overall process or steps to take to limit duration and magnitude of venting. When flaring is not possible, and venting occurs and/or is discovered, 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. The 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 maintenance practices. In this case, VRU #1 malfunctioned several times due to operational issues with the drain line, which caused the unit to shut down on a high scrubber liquid level malfunction as a result of extreme weather conditions and temperatures, affecting the unit. Field personnel upon discovery of the VRU's malfunctioning, which caused unexpected venting to occur, then in turn, began making arrangements to manually drain the scrubber line throughout the day. 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 quickly, safely and diligently.

# 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 venting from vapor recovery units as notwithstanding proper VRU design and operation, various forms of mechanical, electrical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause venting malfunctions to occur without warning or advance notice, even during extreme weather conditions and temperatures. 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 equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for all its facilities and continually work with its automation team to resolve equipment issues in a timely manner, should they occur suddenly and without warning.

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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

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 180765

#### **DEFINITIONS**

| Operator:             | OGRID:                                 |
|-----------------------|--|
| OXY USA INC           | 16696                                  |
| P.O. Box 4294         | Action Number:                         |
| Houston, TX 772104294 | 180765                                 |
|                       | 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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# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 180765

| Phone:(505) 476-3470 Fax:(505) 476-3462  |                                       |  |
|--|---------------------------------------|--|
|  | UESTIONS                              | <del>,</del>   |
| Operator: OXY USA INC  |                                       | OGRID: 16696   |
| P.O. Box 4294  |                                       | Action Number:   |
| Houston, TX 772104294  |                                       | 180765   |
|  |                                       | 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 wi     | ith the rest of the questions.                           |
| Incident Well  | Unavailable.                          |  |
| Incident Facility  | [fAB1901048503] CEDAR                 | CANYON 28-4 CTB  |
| Determination of Reporting Requirements  |                                       |  |
| Answer all questions that apply. The Reason(s) statements are calculated based on your answers as  | nd may provide addional quidance      |  |
| Was this vent or flare caused by an emergency or malfunction   | Yes                                   | 5.   |
| 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 v   | venting and/or flaring that is or may | v he 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                                   | y be a major of millor release ander 19.10.25.7 Millore. |
| Did this vent or flare result in the release of <b>ANY</b> liquids (not fully and/or completely  | 103                                   |  |
| 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  | Vented > VRU > Malfunction            | ons > Scrubber Drain Line                                |
|  |                                       |  |
| 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 (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 spec  | cifications 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.                         |  |
| Salson Bionide (OO2) percentage quality requirement  | not answered.                         | ,  |

Not answered.

Oxygen (02) percentage quality requirement

QUESTIONS, Page 2

Action 180765

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| Phone:(505) 334-6178 Fax:(505) 334-6170 <u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505  Phone:(505) 476-3470 Fax:(505) 476-3462 | a Fe, NM 87505   |
|--|--|
|  | IONS (continued)   |
| Operator: OXY USA INC  | OGRID: 16696   |
| P.O. Box 4294<br>Houston, TX 772104294   | Action Number:<br>180765   |
| 11003(01), 17/1/2104254  | Action Type:   |
| QUESTIONS  | [C-129] Venting and/or Flaring (C-129)   |
| Date(s) and Time(s)  |  |
| Date vent or flare was discovered or commenced   | 12/26/2022   |
| Time vent or flare was discovered or commenced   | 01:57 AM   |
| Time vent or flare was terminated  | 11:59 PM   |
| Cumulative hours during this event   | 12   |
| Measured or Estimated Volume of Vented or Flared Natural Gas   |  |
| Natural Con Ventral (MAC Data)   | Cause: Other   Other (Specify)   Natural Gas Vented   Released: 160 Mcf   Recovered: 0 Mcf   |
| Natural Gas Vented (Mcf) Details   | Lost: 160 Mcf.   |
| Natural Gas Flared (Mcf) Details   | Not answered.  |
| Other Released Details   | Not answered.  |
| Additional details for Measured or Estimated Volume(s). Please specify   | Not answered.  |
| 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  |  |
| •  | T  |
| Was this vent or flare a result of downstream activity  Was notification of downstream activity received by this operator                      | No 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 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. In this case, VRU #1 malfunctioned several times due to operational issues with the drain line, which caused the unit to shut down on a high scrubber liquid level malfunction as a result of extreme weather conditions and temperatures, affecting the unit. Field personnel upon discovery of the VRU's malfunctioning, which caused unexpected venting to occur, then in turn, began making arrangements to drain the scrubber line throughout the day. This incident was completely ou 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 quickly, safely and diligently.   |
| Steps taken to limit the duration and magnitude of vent or flare   | This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no equipment issues, circumstance and/or assist other personnel on-site for maintenance/operational purposes. It is OXY's policy to route all stranded sales gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible, as part of the overall process or steps to take to limit duration and magnitude of venting. When flaring is not possible, and venting occurs and/or is discovered, Oxy productio 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. The 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 maintenance practices. In this case, VRU #1 malfunctioned several times du to operational issues with the drain line, which caused the unit to shut down on a high scrubber liquid level malfunction as a result of extreme weather conditions and temperatures, affecting the unit. Field personnel upon discovery of the VRU's malfunctioning which caused unexpected venting to occur, then in turn, began making arrangements to manually drain the scrubber line throughout the day. 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 quickly, safely and diligently. |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare  | Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of venting from vapor recovery units as notwithstanding proper VRU design an operation, various forms of mechanical, electrical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause venting malfunctions to occur without warning or advance notice, even during extreme weather conditions and temperatures. 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 equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for all its facilities and continually work with its automation team to resolve equipment issues in a timely manner, should they occur suddenly and without warning.   |

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ACKNOWLEDGMENTS

Action 180765

### **ACKNOWLEDGMENTS**

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| OXY USA INC           | 16696                                  |
| P.O. Box 4294         | Action Number:                         |
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|                       | Action Type:                           |
|                       | [C-129] Venting and/or Flaring (C-129) |

### **ACKNOWLEDGMENTS**

| $\overline{\lor}$ | 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 <b>a complete</b> 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. |
| V                 | 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.  |
| V                 | 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.                       |
| <b>~</b>          | 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 180765

### **CONDITIONS**

| Operator:             | OGRID:                                 |
|-----------------------|--|
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| P.O. Box 4294         | Action Number:                         |
| Houston, TX 772104294 | 180765                                 |
|                       | Action Type:                           |
|                       | [C-129] Venting and/or Flaring (C-129) |

### CONDITIONS

| Created By | Condition  | Condition<br>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. | 1/30/2023         |