



Certificate of Analysis

Number: 6030-23110129-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Nov. 14, 2023

| | | | |
|---------------------|--------------------------------|--------------------|------------------------------------|
| Field: | PERMIAN_RESOURCES | Sampled By: | Raul Salazar |
| Station Name: | Falcon Ridge CPF Production #2 | Sample Of: | Gas Spot |
| Station Number: | 16840p | Sample Date: | 11/13/2023 08:48 |
| Station Location: | OP-L3821-BT001 | Sample Conditions: | 109 psig, @ 93.8 °F Ambient: 51 °F |
| Sample Point: | Meter run | Effective Date: | 11/13/2023 08:48 |
| Formation: | NEW_MEXICO | Method: | GPA-2261M |
| County: | Lea, NM | Cylinder No: | 4030-004290 |
| Well Name: | | Instrument: | 70104251 (Inficon GC-MicroFusion) |
| Type of Sample: : | Spot-Cylinder | Last Inst. Cal.: | 11/06/2023 0:00 AM |
| Heat Trace Used: | N/A | Analyzed: | 11/14/2023 08:47:52 by EBH |
| Sampling Method: : | Fill and Purge | Flow Rate mcf/d: | |
| Sampling Company: : | SPL - OXY | | |

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.65 psia |
|------------------|------------------------|----------|----------|----------------------|
| Hydrogen Sulfide | 0.0000 | 0.0010 | 0.0015 | |
| Nitrogen | 1.4421 | 1.4865 | 1.8527 | |
| Carbon Dioxide | 0.3635 | 0.3747 | 0.7337 | |
| Methane | 71.8252 | 74.0368 | 52.8427 | |
| Ethane | 12.0641 | 12.4356 | 16.6361 | 3.321 |
| Propane | 6.7642 | 6.9725 | 13.6788 | 1.918 |
| Iso-Butane | 0.7457 | 0.7687 | 1.9878 | 0.251 |
| n-Butane | 1.9680 | 2.0286 | 5.2457 | 0.639 |
| Iso-Pentane | 0.5003 | 0.5157 | 1.6554 | 0.188 |
| n-Pentane | 0.5069 | 0.5225 | 1.6772 | 0.189 |
| Hexanes | 0.3635 | 0.3747 | 1.4366 | 0.154 |
| Heptanes | 0.3195 | 0.3293 | 1.4680 | 0.152 |
| Octanes | 0.1422 | 0.1466 | 0.7450 | 0.075 |
| Nonanes Plus | 0.0066 | 0.0068 | 0.0388 | 0.004 |
| | 97.0118 | 100.0000 | 100.0000 | 6.891 |

Calculated Physical Properties

| | | |
|-----------------------------|-----------------------|----------------------|
| Calculated Molecular Weight | Total 22.48 | C9+ 128.26 |
| Compressibility Factor | 0.9959 | |
| Relative Density Real Gas | 0.7790 | 4.4283 |

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

| | | |
|-------------------------------------|--------|--------|
| Real Gas Dry BTU | 1322.9 | 6974.4 |
| Water Sat. Gas Base BTU | 1300.3 | 6852.4 |
| Ideal, Gross HV - Dry at 14.65 psia | 1317.5 | 6974.4 |
| Ideal, Gross HV - Wet | 1294.4 | 6852.4 |

Comments: H2S Field Content 10 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Falcon Ridge Tankless CPF**Flare Date:** 11/28/2023**Duration of Event:** 2 hours 50 minutes**MCF Flared:** 170**Start Time:** 12:00 AM**End Time:** 2:50 AM**Cause:** Emergency Flare > Equipment Malfunctions > VRU > VFD Fault**Method of Flared Gas Measurement:** Gas Flare Meter**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, gas had to be flared rather than be compressed when HP VRU # 1 & #2 suddenly and unexpectedly shut down on an e-thermal VFD fault. Gas from the facility's oil and water VRTs 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 was out of Oxy's control to prevent.

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 HP VRU # 1 & #2 suddenly and unexpectedly shut down on an e-thermal VFD fault alarm. Oxy production techs arrived to the facility in a timely manner and proceeded to inspect the VRU's, attempted to clear the malfunctions and restart the VRU's. After several attempts to restart the VRU's with no success, Oxy production techs contacted Oxy Automation support on-site to resolve the VRU's issues, the equipment was restarted and flaring ceased shortly after.

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 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 and automation 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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 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
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 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 294430

DEFINITIONS

| | |
|--|--|
| Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294 | OGRID: 16696 |
| | Action Number: 294430 |
| | 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 294430

QUESTIONS

| | |
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| Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294 | OGRID: 16696 |
| | Action Number: 294430 |
| | 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 | [fAPP2331575145] Falcon Ridge Tankless CPF |

| | |
|---|---|
| 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 | No |
| 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 Flare > Equipment Malfunctions > VRU > VFD Fault |

| | |
|--|---------------|
| 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 | 74 |
| 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 294430

QUESTIONS (continued)

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

QUESTIONS

| Date(s) and Time(s) | |
|--|------------|
| Date vent or flare was discovered or commenced | 11/28/2023 |
| Time vent or flare was discovered or commenced | 12:00 AM |
| Time vent or flare was terminated | 02:50 AM |
| Cumulative hours during this event | 3 |

| 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: 170 Mcf Recovered: 0 Mcf Lost: 170 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 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, gas had to be flared rather than be compressed when HP VRU # 1 & #2 suddenly and unexpectedly shut down on an ethermal VFD fault. Gas from the facility's oil and water VRTs 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 was out of Oxy's control to prevent. |
| Steps taken to limit the duration and magnitude of vent or flare | 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 HP VRU # 1 & #2 suddenly and unexpectedly shut down on an e-thermal VFD fault alarm. Oxy production techs arrived to the facility in a timely manner and proceeded to inspect the VRU's, attempted to clear the malfunctions and restart the VRU's. After several attempts to restart the VRU's with no success, Oxy production techs contacted Oxy |

| | |
|---|--|
| | Automation support on-site to resolve the VRU's issues, the equipment was restarted and flaring ceased shortly after. |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | 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 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 and automation 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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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

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CONDITIONS

| Created By | Condition | Condition Date |
|---------------|--|----------------|
| shelbyschoepf | 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. | 12/13/2023 |