



## Certificate of Analysis

Number: 6030-20020127-004A

Artesia Laboratory

200 E Main St.  
Artesia, NM 88210  
Phone 575-746-3481Chandler Montgomery  
Occidental Petroleum  
1502 W Commerce Dr.  
Carlsbad, NM 88220

Feb. 25, 2020

Field: Cedar Canyon  
 Station Name: Corral Fly 2\_1 St 21H GL  
 Station Number: 181211  
 Station Location: OXY  
 Sample Point: Meter Run  
 Formation: Quarterly  
 County: Eddy  
 Type of Sample: : Spot-Cylinder  
 Heat Trace Used: N/A  
 Sampling Method: : Fill and Purge  
 Sampling Company: : SPL

Sampled By: Chad Whitt  
 Sample Of: Gas Spot  
 Sample Date: 02/20/2020 01:00  
 Sample Conditions: 1161.4 psig, @ 85.7 °F Ambient: 40 °F  
 Effective Date: 02/20/2020 01:00  
 Method: GPA-2261M  
 Cylinder No: 1111-002459  
 Instrument: 6030\_GC2 (Agilent 7890B)  
 Last Inst. Cal.: 02/17/2020 17:06 PM  
 Analyzed: 02/25/2020 10:15:03 by User1

## Analytical Data

| Components     | Un-normalized<br>Mol % | Mol. %  | Wt. %   | GPM at<br>14.65 psia |                |       |
|----------------|------------------------|---------|---------|----------------------|----------------|-------|
| Nitrogen       | 1.298                  | 1.304   | 1.730   |                      | GPM TOTAL C2+  | 5.911 |
| Methane        | 77.087                 | 77.445  | 58.835  |                      | GPM TOTAL C3+  | 2.695 |
| Carbon Dioxide | 0.137                  | 0.138   | 0.288   |                      | GPM TOTAL iC5+ | 0.353 |
| Ethane         | 11.993                 | 12.049  | 17.158  | 3.216                |                |       |
| Propane        | 5.740                  | 5.767   | 12.043  | 1.585                |                |       |
| Iso-butane     | 0.710                  | 0.713   | 1.963   | 0.233                |                |       |
| n-Butane       | 1.658                  | 1.666   | 4.586   | 0.524                |                |       |
| Iso-pentane    | 0.320                  | 0.321   | 1.097   | 0.117                |                |       |
| n-Pentane      | 0.334                  | 0.336   | 1.148   | 0.122                |                |       |
| Hexanes Plus   | 0.260                  | 0.261   | 1.152   | 0.114                |                |       |
|                | 99.537                 | 100.000 | 100.000 | 5.911                |                |       |

## Calculated Physical Properties

|                             |        |        |
|-----------------------------|--------|--------|
| Relative Density Real Gas   | Total  | C6+    |
|                             | 0.7314 | 3.2176 |
| Calculated Molecular Weight | 21.12  | 93.19  |
| Compressibility Factor      | 0.9964 |        |

## GPA 2172 Calculation:

Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia & 60°F

|                                     |        |        |
|-------------------------------------|--------|--------|
| Real Gas Dry BTU                    | 1258   | 5113   |
| Water Sat. Gas Base BTU             | 1237   | 5024   |
| Ideal, Gross HV - Dry at 14.65 psia | 1253.8 | 5113.2 |
| Ideal, Gross HV - Wet               | 1231.9 |        |
| Net BTU Dry Gas - real gas          | 1142   |        |
| Net BTU Wet Gas - real gas          | 1122   |        |

Comments: H2S Field Content 0 ppm  
 Mcf/day 1444.2

Hydrocarbon Laboratory Manager

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

**EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Corral 2S CS**Start Date:** 07/04/2021**End Date:** 07/04/2021**Cause:** Power Failure/Blown Fuse**Duration of event:** 50 minutes**MCF Volume Flared:** 322**Method of Flared Gas Measurement:** Flare Meter

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

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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions.

During this event, the flaring was caused by a blown fuse at the PLC causing the station to lose power and the station go off line. Oxy personnel immediately responded to replace the blown fuse to restore power and get the station back up and running. Once all units and equipment were back online, all flaring ceased. During the event, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to minimize emissions as much as possible.

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

In this case, Oxy responded immediately responded to replace the blown fuse and restore power to the station. Once the units were restarted and gas sales resumed, flaring ceased.

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

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 preventative maintenance practices. Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design, operation, and maintenance; various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected. 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 dedicated compression equipment preventative maintenance program in place.

**District I**

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

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**District III**

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**District IV**

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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 42374

**QUESTIONS**

|                                                                    |                                                        |
|--------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696                                        |
|                                                                    | Action Number:<br>42374                                |
|                                                                    | Action Type:<br>[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     | [30-015-44507] CORRAL FLY 02 01 STATE #021H |
| Incident Facility | Not answered.                               |

**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 notification of a major venting and/or flaring                                                                                                                                                                                                         | 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 due to power failure/blown fuse. |

**Representative Compositional Analysis of Vented or Flared Natural Gas**

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

|                                                                                                                               |               |
|-------------------------------------------------------------------------------------------------------------------------------|---------------|
| Methane (CH4) percentage                                                                                                      | 77            |
| 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 | 07/04/2021 |
| Time venting and/or flaring was discovered or commenced | 12:00 AM   |
| Time venting and/or flaring was terminated              | 12:50 AM   |
| Cumulative hours during this event                      | 1          |

**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: 322 Mcf   Recovered: 0 Mcf   Lost: 322 Mcf ] |
| Other Released Details                                                    | Not answered.                                                                                                |
| Additional details for Measured or Estimated Volume(s). Please specify    | 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.                                   |

|                                                                            |               |
|----------------------------------------------------------------------------|---------------|
| <b>Venting or Flaring Resulting from Downstream Activity</b>               |               |
| Was or is this venting and/or flaring a result of downstream activity      | 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. |

|                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Steps and Actions to Prevent Waste</b>                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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                                                    | 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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. During this event, the flaring was caused by a blown fuse at the PLC causing the station to lose power and the station go off line. Oxy personnel immediately responded to replace the blown fuse to restore power and get the station back up and running. Once all units and equipment were back online, all flaring ceased. During the event, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to minimize emissions as much as possible. |
| Steps taken to limit the duration and magnitude of venting and/or flaring                                                      | In this case, Oxy responded immediately responded to replace the blown fuse and restore power to the station. Once the units were restarted and gas sales resumed, flaring ceased.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring                                     | 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 preventative maintenance practices. Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design, operation, and maintenance; various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected. 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 dedicated compression equipment preventative maintenance program in place.                                                                                                                                                                                                                     |

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CONDITIONS

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|                                                                    | Action Number:<br>42374                                |
|                                                                    | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**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. | 8/16/2021      |