



## Certificate of Analysis

Number: 6030-21060185-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

June 21, 2021

Field: Cal Mon  
Station Name: Pure Gold A Fed 8 Battery  
Station Number: 83293  
Station Location: CTB  
Sample Point: Meter  
Formation: Quarterly  
County: Eddy  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge  
Sampling Company: : SPL

Sampled By: Michael Mirabal  
Sample Of: Gas Spot  
Sample Date: 06/17/2021 08:21  
Sample Conditions: 30 psia, @ 86 °F Ambient: 82 °F  
Effective Date: 06/17/2021 08:21  
Method: GPA-2261M  
Cylinder No: 1111-001222  
Instrument: 70104124 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 05/18/2021 0:00 AM  
Analyzed: 06/21/2021 09:45:07 by KNF

## Analytical Data

| Components       | Un-normalized<br>Mol % | Mol. %   | Wt. %   | GPM at<br>14.65 psia |
|------------------|------------------------|----------|---------|----------------------|
| Hydrogen Sulfide | NIL                    | NIL      | NIL     |                      |
| Nitrogen         | 5.004                  | 5.04821  | 5.940   |                      |
| Carbon Dioxide   | 0.110                  | 0.11066  | 0.205   |                      |
| Methane          | 69.004                 | 69.61086 | 46.901  |                      |
| Ethane           | 11.712                 | 11.81450 | 14.921  | 3.156                |
| Propane          | 7.762                  | 7.83037  | 14.502  | 2.155                |
| Iso-Butane       | 0.865                  | 0.87220  | 2.129   | 0.285                |
| n-Butane         | 2.053                  | 2.07136  | 5.056   | 0.652                |
| Iso-Pentane      | 0.532                  | 0.53648  | 1.626   | 0.196                |
| n-Pentane        | 0.501                  | 0.50541  | 1.532   | 0.183                |
| Hexanes          | 0.362                  | 0.36559  | 1.323   | 0.150                |
| Heptanes         | 0.416                  | 0.41956  | 1.766   | 0.193                |
| Octanes          | 0.489                  | 0.49310  | 2.366   | 0.252                |
| Nonanes Plus     | 0.319                  | 0.32170  | 1.733   | 0.181                |
|                  | 99.129                 | 100.0000 | 100.000 | 7.403                |

## Calculated Physical Properties

|                             |        |        |
|-----------------------------|--------|--------|
| Calculated Molecular Weight | Total  | C9+    |
| Compressibility Factor      | 23.81  | 128.26 |
| Relative Density Real Gas   | 0.9955 |        |
|                             | 0.8255 | 4.4283 |

## GPA 2172 Calculation:

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

|                                     |        |        |
|-------------------------------------|--------|--------|
| Real Gas Dry BTU                    | 1342.4 | 6974.4 |
| Water Sat. Gas Base BTU             | 1319.5 | 6852.4 |
| Ideal, Gross HV - Dry at 14.65 psia | 1336.4 | 6974.4 |
| Ideal, Gross HV - Wet               | 1313.0 | 6852.4 |

Comments: H2S Field Content 0 ppm  
Mcf/day 291

*Jesus Escobedo*

*Eric Ramirez*

Data reviewed by: Eric Ramirez, Analyst

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:** Pure Gold A8 is nearest facility (Remote location: 32.2920609, -103.7849197)

**Start Date:** 07/04/2021

**End Date:** 07/04/2021

**Cause:** Gas Line Damage - Malfunction

**Duration of event:** 24 hours

**MCF Volume Flared:** 245

**Method of Flared Gas Measurement:** Allocation

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

The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.

Oxy contracts with third-party aerial survey contractors, and on July 12, 2021, Oxy became aware of a potential leak detected in the middle of a remote field. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.

Once the leak was verified and stopped, and the damaged gas line was repaired, Oxy's Operations group then transitioned its focus on performing an extensive review to determine how long the leak may have gone on for. The review demanded a significant amount of time and resources, including conducting field visits to ensure the leak was isolated to this remote gas line, and performing extensive data analysis of historical production and pressure records on the Pure Gold A Fed 8 battery production meter.

The group determined that the leak was isolated to the damaged gas line, and also identified an August 31, 2020 pressure drop, providing insight into the potential timing of when the leak first occurred. While not certain, the group used best engineering and operational estimates to determine that, based on the pressure drop on August 31, 2020 found in historical production and pressure records, it is possible that a total of 79,369 mscf of gas may have leaked from the failed seam on the gas line, an amount that meets the definition of a "major release." This estimated total covers the timeframe from August 31, 2020 until July 13, 2021, when the leak was stopped.

Upon conclusion of the review, when Oxy had an objectively reasonable basis to determine that a major release likely took place, Oxy reached out to the Division, and informed them of the event and our plans to submit a C-141 for the time period covering August 31, 2020 until May 24, 2021 (the day before the NMOCD's venting/flaring rule went into effect) for estimated emissions of 66,646 mscf, and that additional C-129's would be submitted for May 25, 2021 until July 11, 2021, and July 13, 2021 for a total of 12,420 mscf covering both timeframes. A C-129 has already been submitted for July 12, 2021, the day Oxy became aware of a potential leak, reporting 303 mscf for that day. It should be noted that upon further review and after the first C-129 submittal covering July 12, 2021 when Oxy became aware of the leak; it was determined that the volume reported for July 12, 2021 should have been 259 mscf instead of the 303 mscf initially reported. Therefore, we have contacted The Division to amend that initial C-129 submittal.

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

Oxy became aware of a potential leak detected in the middle of a remote field on July 12, 2021. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, on July 13, 2021, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.

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

The leak was verified and stopped on July 13, 2021. The next day, on July 14, 2021, the damaged gas line was repaired.

The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.

**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 52310

**QUESTIONS**

|                                                                    |                                                        |
|--------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696                                        |
|                                                                    | Action Number:<br>52310                                |
|                                                                    | 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     | [30-015-35296] PURE GOLD A FEDERAL #008 |
| 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                                                                                                                                                                  | Yes                                               |
| 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                                | Flow Line - Production  |
| Additional details for Equipment Involved. Please specify | gas production flowline |

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

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

|                                                              |    |
|--------------------------------------------------------------|----|
| Methane (CH4) percentage                                     | 69 |
| Nitrogen (N2) percentage, if greater than one percent        | 5  |
| 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              | 11:59 PM   |
| Cumulative hours during this event                      | 24         |

**Measured or Estimated Volume of Vented or Flared Natural Gas**

|                                  |                                                                                                                               |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Natural Gas Vented (Mcf) Details | Cause: Equipment Failure   Flow Line - Production   Natural Gas Vented   Released: 245 Mcf   Recovered: 0 Mcf   Lost: 245 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                      |               |
|----------------------------------------------------------------------------|---------------|
| 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                                                    | The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.                                                                                                                        |
| Steps taken to limit the duration and magnitude of venting and/or flaring                                                      | Oxy became aware of a potential leak detected in the middle of a remote field on July 12, 2021. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, on July 13, 2021, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.                                        |
| Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring                                     | The leak was verified and stopped on July 13, 2021. The next day, on July 14, 2021, the damaged gas line was repaired. The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future. |

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CONDITIONS

Action 52310

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|                                                                    |                                                        |
|--------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696                                        |
|                                                                    | Action Number:<br>52310                                |
|                                                                    | 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. | 9/27/2021      |