# Natural Gas Analysis Report GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

|                                  | Sample Information                   |
|----------------------------------|--------------------------------------|
| Sample Name                      | RED TANK 19 CGL CHECK B              |
| Technician                       | ANTHONY DOMINGUEZ                    |
| Analyzer Make & Model            | INFICON MICRO GC                     |
| Last Calibration/Validation Date | 01-23-2023                           |
| Meter Number                     | 15698C                               |
| Air temperature                  | 40                                   |
| Flow Rate (MCF/Day)              | 13030.8                              |
| Heat Tracing                     | Heated Hose & Gasifier               |
| Sample description/mtr name      | RED TANK 19 CGL CHECK B              |
| Sampling Method                  | fill and empty                       |
| Operator                         | AKM MEASUREMENT                      |
| State                            | New Mexico                           |
| Region Name                      | PERMIAN_RESOURCES                    |
| Asset                            | NEW MEXICO                           |
| System                           | EAST                                 |
| FLOC                             | OP-L2151-CS002                       |
| Sample Sub Type                  | COMP STATION                         |
| Sample Name Type                 | METER                                |
| Vendor                           | AKM MEASUREMENT                      |
| Cylinder #                       | 4678                                 |
| Sampled by                       | JONATHAN ALDRICH                     |
| Sample date                      | 1-24-2023                            |
| Analyzed date                    | 1-26-2023                            |
| Method Name                      | C9                                   |
| Injection Date                   | 2023-01-26 08:38:14                  |
| Report Date                      | 2023-01-26 08:42:48                  |
| EZReporter Configuration File    | 1-16-2023 OXY GPA C9+ H2S #2.cfgx    |
| Source Data File                 | 53dca264-5446-4e60-9234-d149041123f4 |
| NGA Phys. Property Data Source   | GPA Standard 2145-16 (FPS)           |
| Data Source                      | INFICON Fusion Connector             |

# **Component Results**

| Component<br>Name | Peak<br>Area | Raw<br>Amount | Response<br>Factor | Norm<br>Mole% | Gross HV (Dry)<br>(BTU / Ideal cu.ft.) | Relative Gas<br>Density (Dry) | GPM (Dry)<br>(Gal. / 1000 cu.ft.) |  |
|-------------------|--------------|---------------|--------------------|---------------|--|-------------------------------|-----------------------------------|--|
| Nitrogen          | 35977.3      | 2.0276        | 0.00005636         | 2.0190        | 0.0                                    | 0.01953                       | 0.223                             |  |
| Methane           | 1018154.0    | 74.5958       | 0.00007327         | 74.2785       | 751.9                                  | 0.41143                       | 12.634                            |  |
| CO2               | 73484.5      | 3.4729        | 0.00004726         | 3.4581        | 0.0                                    | 0.05255                       | 0.592                             |  |
| Ethane            | 258499.0     | 11.7635       | 0.00004551         | 11.7134       | 207.8                                  | 0.12161                       | 3.143                             |  |
| H2S               | 0.0          | 0.0000        | 0.00000000         | 0.0000        | 0.0                                    | 0.00000                       | 0.000                             |  |
| Propane           | 181239.7     | 5.9390        | 0.00003277         | 5.9137        | 149.1                                  | 0.09004                       | 1.635                             |  |
| iso-butane        | 57438.8      | 0.6384        | 0.00001111         | 0.6357        | 20.7                                   | 0.01276                       | 0.209                             |  |
| n-Butane          | 131616.2     | 1.4457        | 0.00001098         | 1.4396        | 47.1                                   | 0.02889                       | 0.455                             |  |
| iso-pentane       | 21709.9      | 0.2109        | 0.00000971         | 0.2100        | 8.4                                    | 0.00523                       | 0.077                             |  |
| n-Pentane         | 21485.5      | 0.2034        | 0.00000947         | 0.2026        | 8.1                                    | 0.00505                       | 0.074                             |  |
| hexanes           | 10440.0      | 0.0793        | 0.00000760         | 0.0790        | 3.8                                    | 0.00235                       | 0.033                             |  |
| heptanes          | 6110.0       | 0.0382        | 0.00000624         | 0.0380        | 2.1                                    | 0.00131                       | 0.018                             |  |
| octanes           | 2141.0       | 0.0119        | 0.00000558         | 0.0119        | 0.7                                    | 0.00047                       | 0.006                             |  |
| nonanes+          | 85.0         | 0.0005        | 0.00000619         | 0.0005        | 0.0                                    | 0.00002                       | 0.000                             |  |
| Total:            |              | 100.4272      |                    | 100.0000      | 1199.9                                 | 0.75123                       | 19.098                            |  |

### **Results Summary**

| Result                                      | Dry      | Sat. |
|---|----------|------|
| Total Un-Normalized Mole%                   | 100.4272 |      |
| Pressure Base (psia)                        | 14.730   |      |
| Temperature Base (Deg. F)                   | 60.00    |      |
| ed Flowing Temperature (P/297/2)023 5:04:51 | PM 85.0  |      |

| Received by OCD: 1462742023 4:50:07 P    | M Dry  | Sat.   | Page |
|--|--------|--------|------|
| Flowing Pressure (psia)                  | 1170.0 |        |      |
| Gross Heating Value (BTU / Ideal cu.ft.) | 1199.9 | 1179.0 |      |
| Gross Heating Value (BTU / Real cu.ft.)  | 1204.1 | 1183.7 |      |
| Relative Density (G), Real               | 0.7536 | 0.7516 |      |

# **Monitored Parameter Report**

| Parameter                  | Value    | Lower Limit | Upper Limit | Status |  |
|----------------------------|----------|-------------|-------------|--------|--|
| Total un-normalized amount | 100.4272 | 97.0000     | 103.0000    | Pass   |  |

#### **UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**

Facility: Red Tank 19 CTB Flare Date: 11/12/2023

**Duration of Event:** 26 Minutes **MCF Flared:** 144

Start Time: 11:34 AM End Time: 12:00 PM

Cause: Emergency Flare > Third Party > USA Compression > Red Tank Boo 26 CS > Compression Equipment

Issues

Method of Flared Gas Measurement: Gas Flare Meter

### 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 pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, 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, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had valve equipment issues on their end, which then instigated a sudden and unexpected restriction of gas flow intake on their end, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.

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

It is OXY's policy to route its 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. In this case, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had valve equipment issues on their end, which then instigated a sudden and unexpected restriction of gas flow intake on their end, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.

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

Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank Boo 26 compressor station, when possible, during these types of circumstances.

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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 288657

#### **DEFINITIONS**

| Operator:             | OGRID:                                 |
|-----------------------|--|
| OXY USA INC           | 16696                                  |
| P.O. Box 4294         | Action Number:                         |
| Houston, TX 772104294 | 288657                                 |
|                       | 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 288657

| ٥  | UESTIONS                                      |   |  |
|--|---|---|--|
| Operator:  | <u> </u>                                      | OGRID:  |  |
| OXY USA INC  |   | 16696   |  |
| P.O. Box 4294<br>Houston, TX 772104294   |   | Action Number: 288657                                     |  |
| 1,000,000,000,000,000  |   | Action Type:  |  |
| QUESTIONS  |   | [C-129] Venting and/or Flaring (C-129)                    |  |
| Prerequisites  |   |   |  |
| Any messages presented in this section, will prevent submission of this application. Please resolve  | these issues before continuing wit            | th the rest of the questions.                             |  |
| Incident Well  | Unavailable.                                  |   |  |
| Incident Facility  | [fAPP2127031815] RED TA                       | NK 19 CTB   |  |
| Determination of Reporting Requirements  |   |   |  |
| Answer all questions that apply. The Reason(s) statements are calculated based on your answers a   | nd may provide addional 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   | No  |   |  |
| 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 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   | se a major or minor release under 15.16.25.7 Hunte.       |  |
| Did this vent or flare result in the release of <b>ANY</b> 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  |   |  |
|  |   |   |  |
| Equipment Involved   |   |   |  |
| Primary Equipment Involved   | Other (Specify)                               |   |  |
| Additional details for Equipment Involved. Please specify  | Emergency Flare > Third P<br>Equipment Issues | arty > USA Compression > Red Tank Boo 26 CS > Compression |  |
| Representative Compositional Analysis of Vented or Flared Natural Gas  |   |   |  |
| Please provide the mole percent for the percentage questions in this group.  |   |   |  |
| Methane (CH4) percentage   | 74  |   |  |
| Nitrogen (N2) percentage, if greater than one percent  | 2   |   |  |
| Hydrogen Sulfide (H2S) PPM, rounded up   | 0   |   |  |
| Carbon Dioxide (C02) percentage, if greater than one percent   | 3   |   |  |
| Oxygen (02) percentage, if greater than one percent  | 0   |   |  |
| exigen (e_) percentage, ii greater atail one percent   |   |   |  |
| 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.                                 |   |  |
| Oxygen (02) percentage quality requirement   | Not answered.                                 |   |  |

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Time vent or flare was terminated

Cumulative hours during this event

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QUESTIONS, Page 2

Action 288657

| QUESTIONS (continued)                                   |   |  |  |  |
|---|---|--|--|--|
| Operator: OXY USA INC                                   | OGRID:<br>16696                                     |  |  |  |
| P.O. Box 4294<br>Houston, TX 772104294                  | Action Number: 288657                               |  |  |  |
|   | Action Type: [C-129] Venting and/or Flaring (C-129) |  |  |  |
| QUESTIONS   | •   |  |  |  |
| Date(s) and Time(s)                                     |   |  |  |  |
| Date vent or flare was discovered or commenced          | 11/12/2023  |  |  |  |
| Time vent or flare was discovered or commenced 11:34 AM |   |  |  |  |

12:00 PM

0

| Natural Gas Vented (Mcf) Details  | Not answered.   |
|---|---|
| Natural Gas Flared (Mcf) Details  | Cause: Other   Other (Specify)   Natural Gas Flared   Released: 144 Mcf   Recovered: 0 Mcf Lost: 144 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 event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, 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, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had valve equipment issues on their end, which then instigated a sudden and unexpected restriction of gas flow intake on their end, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible. |  |  |  |
|  | It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable  |  |  |  |

| Steps taken to limit the duration and magnitude of vent or flare                  | 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. In this case, Red Tank Boo 26 compressor station, third party owned and operated by USA Compression, had valve equipment issues on their end, which then instigated a sudden and unexpected restriction of gas flow intake on their end, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from USA Compression personnel. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible. |
|---|--|
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank Boo 26 compressor station, when possible, during these types of circumstances.  |

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ACKNOWLEDGMENTS

Action 288657

#### **ACKNOWLEDGMENTS**

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|-----------------------|--|--|
| OXY USA INC           | 16696                                  |  |
| P.O. Box 4294         | Action Number:                         |  |
| Houston, TX 772104294 | 288657                                 |  |
|                       | Action Type:                           |  |
|                       | [C-129] Venting and/or Flaring (C-129) |  |

#### **ACKNOWLEDGMENTS**

| <b>&gt;</b> | I acknowledge that I am authorized to submit a Venting and/or Flaring (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.  |
|-------------|---|
| V           | 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 288657

### **CONDITIONS**

| Operator:             | OGRID:                                 |
|-----------------------|--|
| OXY USA INC           | 16696                                  |
| P.O. Box 4294         | Action Number:                         |
| Houston, TX 772104294 | 288657                                 |
|                       | Action Type:                           |
|                       | [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. | 11/27/2023     |