AKM Measurement Services, LLC
Carlsbad, New Mexico



**AKM MEASUREMENT SERVICES,LLC. Natural Gas Analysis Report**
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

| | Sample Information |
|---|---|
| Sample Name | CYPRESS 33 A CDP |
| Technician | ANTHONY DOMINGUEZ |
| Analyzer Make & Model | INFICON MICRO GC |
| Last Calibration/Validation Date | 10-05-2023 |
| Meter Number | 1.10.1 |
| Air temperature | 80 |
| Flow Rate (MCF/Day) | 8450 |
| Heat Tracing | HEATED HOSE & GASIFIER |
| Sample description/mtr name | CYPRESS 33 A CDP |
| Sampling Method | FILL & EMPTY |
| Operator | OCCIDENTAL PETROLEUM, OXY USA INC |
| State | NEW MEXICO |
| Region Name | PERMIAN_RESOURCES |
| Asset | NEW MEXICO |
| System | EAST OF PECOS |
| FLOC | OP-L3818-BT001 |
| Sample Sub Type | CDP |
| Sample Name Type | METER |
| Vendor | AKM MEASUREMENT |
| Cylinder # | 38980 |
| Sampled by | CHANDLER MONTGOMERY |
| Sample date | 10-4-2023 |
| Analyzed date | 10-7-2023 |
| Method Name | C9 |
| Injection Date | 2023-10-07 14:06:17 |
| Report Date | 2023-10-07 14:08:09 |
| EZReporter Configuration File | 1-16-2023 OXY GPA C9+ H2S #2.cfgx |
| Source Data File | 5def1129-b4da-4637-92e3-de487ead38fe |
| NGA Phys. Property Data Source | GPA Standard 2145-16 (FPS) |
| Data Source | INFICON Fusion Connector |

## Component Results

| Component Name | Peak Area | Raw Amount | Response Factor | Norm Mole% | Gross HV (Dry) (BTU / Ideal cu.ft.) | Relative Gas Density (Dry) | GPM (Dry) (Gal. / 1000 cu.ft.) | |
|---|---|---|---|---|---|---|---|---|
| Nitrogen | 19012.9 | 1.0802 | 0.00005681 | 1.0778 | 0.0 | 0.01042 | 0.119 | |
| Methane | 1057194.8 | 77.7319 | 0.00007353 | 77.5593 | 785.2 | 0.42960 | 13.199 | |
| CO2 | 2587.1 | 0.1236 | 0.00004778 | 0.1233 | 0.0 | 0.00187 | 0.021 | |
| Ethane | 241018.8 | 11.0556 | 0.00004587 | 11.0311 | 195.7 | 0.11452 | 2.961 | |
| H2S | 0.0 | 0.0000 | 0.00000000 | 0.0000 | 0.0 | 0.00000 | 0.000 | |
| Propane | 159382.8 | 5.0405 | 0.00003162 | 5.0293 | 126.8 | 0.07657 | 1.391 | |
| iso-butane | 68851.6 | 0.7760 | 0.00001127 | 0.7743 | 25.2 | 0.01554 | 0.254 | |
| n-Butane | 164158.7 | 1.8349 | 0.00001118 | 1.8309 | 59.9 | 0.03674 | 0.579 | |
| iso-pentane | 51400.4 | 0.5071 | 0.00000987 | 0.5060 | 20.3 | 0.01260 | 0.186 | |
| n-Pentane | 64230.3 | 0.6198 | 0.00000965 | 0.6185 | 24.9 | 0.01541 | 0.225 | |
| hexanes | 74758.0 | 0.5770 | 0.00000772 | 0.5758 | 27.4 | 0.01713 | 0.238 | |
| heptanes | 77076.0 | 0.5590 | 0.00000725 | 0.5578 | 30.8 | 0.01930 | 0.258 | |
| octanes | 36746.0 | 0.2731 | 0.00000743 | 0.2725 | 17.1 | 0.01075 | 0.140 | |
| nonanes+ | 3516.0 | 0.0435 | 0.00001237 | 0.0434 | 3.0 | 0.00192 | 0.025 | |
| Total: | | 100.2223 | | 100.0000 | 1316.2 | 0.76239 | 19.597 | |

## Results Summary

| Result | Dry | Sat. | |
|---|---|---|---|
| Total Un-Normalized Mole% | 100.2223 | | |
| Pressure Base (psia) | 14.730 | | |
| Temperature Base (Deg. F) | 60.00 | | |
| Flowing Temperature (Deg. F) | 92.5 | | |

| Result | Dry | Sat. |
|---|---|---|
| Flowing Pressure (psia) | 52.2 | |
| Gross Heating Value (BTU / Ideal cu.ft.) | 1316.2 | 1293.3 |
| Gross Heating Value (BTU / Real cu.ft.) | 1321.6 | 1299.2 |
| Relative Density (G), Real | 0.7652 | 0.7631 |

## Monitored Parameter Report

| Parameter | Value | Lower Limit | Upper Limit | Status |
|---|---|---|---|---|
| Total un-normalized amount | 100.2223 | 97.0000 | 103.0000 | Pass |

# UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

**Facility:** Cypress 33A CTB **Flare Date:** 02/13/2024

**Duration of Event:** 07 Hours 19 Minutes **MCF Flared:** 107 MCF

**Start Time:** 04:40 PM **End Time:** 11:59 PM

**Cause:** Emergency Flare > Downstream Activity > Third Party > Salt Creek Midstream > Salt Creek Compressor Station > High O2 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, third party owned and operated Salt Creek Midstream's compressor station, had issues with high O2 several times within a 24-hr period, which in turn, caused their compressor station to shut down, which then prompted high line pressure to occur multiple times, when which then triggered intermittent flaring instances to occur at the Cypress 33A CTB. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning.

## 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, which 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. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. 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, third party owned and operated Salt Creek Midstream's compressor station, had issues with high O2 several times within a 24-hr period, which in turn, caused their compressor station to shut down, which then prompted high line pressure to occur multiple times, when which then triggered intermittent flaring instances to occur at the Cypress 33A CTB. In each instance of flaring, field personnel began making choke changes so that field pressure would stay below the flare trigger setpoints of the facility. 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.

**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, or additional downstream third-party gas plant 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.

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**District IV**
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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

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>328219 |
| | Action Type:<br>[C-129] Amend Venting and/or Flaring (C-129A) |

**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 328219

## QUESTIONS

| | |
|---|---|
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**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 ID (n#) | *Unavailable.* |
| Incident Name | *Unavailable.* |
| Incident Type | **Flare** |
| Incident Status | *Unavailable.* |
| Incident Facility | **[fAPP2305250553] Cypress 33 A CTB** |
| *Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.* | |

| **Determination of Reporting Requirements** | |
|---|---|
| *Answer all questions that apply. The Reason(s) statements are calculated based on your answers and 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 venting and/or flaring that is or may 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 |
| 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 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 > Downstream Activity > Third Party > Salt Creek Midstream > Salt Creek Compressor Station > High O2 Issues |

| **Representative Compositional Analysis of Vented or Flared Natural Gas** | |
|---|---|
| *Please provide the mole percent for the percentage questions in this group.* | |
| Methane (CH4) percentage | 78 |
| Nitrogen (N2) percentage, if greater than one percent | 1 |
| Hydrogen Sulfide (H2S) PPM, rounded up | 0 |
| Carbon Dioxide (C02) percentage, if greater than one percent | 0 |
| Oxygen (02) percentage, if greater than one percent | 0 |
| *If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.* | |
| Methane (CH4) percentage quality requirement | 0 |
| Nitrogen (N2) percentage quality requirement | 0 |
| Hydrogen Sufide (H2S) PPM quality requirement | 0 |
| Carbon Dioxide (C02) percentage quality requirement | 0 |
| Oxygen (02) percentage quality requirement | 0 |

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## QUESTIONS (continued)

| | |
|---|---|
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**QUESTIONS**

| **Date(s) and Time(s)** | |
|---|---|
| Date vent or flare was discovered or commenced | 02/13/2024 |
| Time vent or flare was discovered or commenced | 04:40 PM |
| Time vent or flare was terminated | 11:59 PM |
| Cumulative hours during this event | 7 |

| **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: 107 MCF \| Recovered: 0 MCF \| Lost: 107 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 | Yes |
| Was notification of downstream activity received by this operator | No |
| Downstream OGRID that should have notified this operator | [373554] Salt Creek Midstream, LLC |
| Date notified of downstream activity requiring this vent or flare | |
| 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, third party owned and operated Salt Creek Midstream's compressor station, had issues with high O2 several times within a 24-hr period, which in turn, caused their compressor station to shut down, which then prompted high line pressure to occur multiple times, when which then triggered intermittent flaring instances to occur at the Cypress 33A CTB. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning. |
| | It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, which 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. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily |

| | |
|---|---|
| Steps taken to limit the duration and magnitude of vent or flare | walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. 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, third party owned and operated Salt Creek Midstream's compressor station, had issues with high O2 several times within a 24-hr period, which in turn, caused their compressor station to shut down, which then prompted high line pressure to occur multiple times, when which then triggered intermittent flaring instances to occur at the Cypress 33A CTB. In each instance of flaring, field personnel began making choke changes so that field pressure would stay below the flare trigger setpoints of the facility. 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. |
| 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, or additional downstream third-party gas plant 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. |

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## ACKNOWLEDGMENTS

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

**ACKNOWLEDGMENTS**

| | |
|---|---|
| ☑ | I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC. |
| ☑ | I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record. |
| ☑ | I hereby certify the statements in this amending 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. |
| ☑ | 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. |
| ☑ | 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 328219

## CONDITIONS

| | |
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**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| shelbyschoepf | If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event. | 3/31/2024 |