



## C9+ Analysis

GPA 2172/API 14.5 Report with GPA 2145 Physical Properties

### Sample Information

|                                                   |                 | Sample Information                                         |
|---------------------------------------------------|-----------------|------------------------------------------------------------|
| Sample Name                                       |                 | BODACIOUS 5-32 FC 4H                                       |
| Operator                                          |                 | Permian Resources                                          |
| Lease                                             |                 | BODACIOUS 5-32 FC 4H                                       |
| Sample Date/Time:                                 | Effective Date: | 10-28-24                                                   |
| Sample End Date                                   |                 |                                                            |
| Laboratory                                        |                 | Laboratory Services and Measurement                        |
| Technician                                        |                 | LC                                                         |
| Analyzer Type                                     |                 | Gas Chromatograph - TCD                                    |
| Analyzer Make & Model                             |                 | Shimadzu GC 2014                                           |
| Last Calibration/Validation Date                  |                 | 11-18-24                                                   |
| Sample Temperature                                |                 | 104 F                                                      |
| Sample Pressure                                   |                 | 141 PSI                                                    |
| Sample Flow Rate                                  |                 | 315 MCF                                                    |
| Ambient Temperature                               |                 | 90 F                                                       |
| Heat Tracing                                      |                 | No                                                         |
| Sample Type                                       |                 | Spot                                                       |
| Sampling Method                                   |                 | Fill and Purge                                             |
| Company Collecting Sample                         |                 | LSM                                                        |
| Sampled By                                        |                 | James Hill                                                 |
| Cylinder #                                        |                 | 3500                                                       |
| Mole, Weight, or Percent (For Flowcal DON'T EDIT) |                 | M                                                          |
| Sample Calculation Method(For Flowcal DON'T EDIT) |                 | GPA 2172/API 14.5 Report with GPA 2145 Physical Properties |
| Analysis Date                                     |                 | 2024-11-22 10:46:32                                        |

### Component Results

| Component Name | Un-Normalized Mole% | Norm Mole% |  |
|----------------|---------------------|------------|--|
| Nitrogen       | 1.1860              | 1.1720     |  |
| Carbon Dioxide | 0.0700              | 0.0692     |  |
| Methane        | 78.4260             | 77.5014    |  |
| Ethane         | 10.6800             | 10.5541    |  |
| Propane        | 6.2400              | 6.1664     |  |
| isobutane      | 0.7660              | 0.7570     |  |

| Component Name   | Un-Normalized Mole% | Norm Mole% |  |
|------------------|---------------------|------------|--|
| n-Butane         | 1.8810              | 1.8588     |  |
| isopentane       | 0.4660              | 0.4605     |  |
| n-Pentane        | 0.5250              | 0.5188     |  |
| hexanes          | 0.5920              | 0.5850     |  |
| heptanes         | 0.2500              | 0.2471     |  |
| octanes          | 0.0820              | 0.0810     |  |
| nonanes+         | 0.0290              | 0.0287     |  |
| hydrogen sulfide | 0.0000              | 0.0000     |  |
| Total:           | 101.1930            | 100.0000   |  |

### Results Summary

| Result                                   | Dry      | Wet/Sat |  |
|------------------------------------------|----------|---------|--|
| Total Un-Normalized Mole%                | 101.1930 |         |  |
| Pressure Base (psia)                     | 14.730   |         |  |
| Temperature Base (Deg. F)                | 60.00    |         |  |
| Gross Heating Value (BTU / Ideal cu.ft.) | 1300.7   | 1278.0  |  |
| Gross Heating Value (BTU / Real cu.ft.)  | 1305.8   | 1283.6  |  |
| Relative Density (G), Ideal              | 0.7524   | 0.7502  |  |
| Relative Density (G), Real               | 0.7551   | 0.7531  |  |
| Compressibility (Z) Factor               | 0.9961   | 0.9957  |  |
| Total GPM                                | 19.475   | 19.244  |  |

Volumes associated with this C-129 filing are estimations and may be subject to change as data is reconciled. The operator's current practice consists of metering volumes and report in accordance with NMAC 19.15.27.

For inquiries regarding this filing, please contact the operator.

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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

DEFINITIONS

Action 435114

DEFINITIONS

|                                                                                              |                                                        |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>Earthstone Operating, LLC<br>300 N. Marienfeld St Ste 1000<br>Midland, TX 79701 | OGRID:<br>331165                                       |
|                                                                                              | Action Number:<br>435114                               |
|                                                                                              | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

DEFINITIONS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:</p> <ul style="list-style-type: none"><li>• this application's operator, hereinafter "this operator";</li><li>• venting and/or flaring, hereinafter "vent or flare";</li><li>• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>• the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>• and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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QUESTIONS

Action 435114

**QUESTIONS**

|                                                                                              |                                                        |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------|
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|                                                                                              | Action Number:<br>435114                               |
|                                                                                              | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**QUESTIONS**

|                                                                                                                                                                                                   |                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| <b>Prerequisites</b><br><i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i> |                                                 |
| Incident Well                                                                                                                                                                                     | Unavailable.                                    |
| Incident Facility                                                                                                                                                                                 | [fAPP2123755583] BODACIOUS 5-32 FED COM BATTERY |

|                                                                                                                                                                                                                                                                                            |                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>Determination of Reporting Requirements</b><br><i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>                                                                                               |                                                   |
| Was this vent or flare caused by an emergency or malfunction                                                                                                                                                                                                                               | No                                                |
| Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event                                                                                                                                                                                 | Yes                                               |
| Is this considered a submission for a vent or flare event                                                                                                                                                                                                                                  | Yes, minor venting and/or flaring of natural gas. |
| <i>An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.</i>                                                                                     |                                                   |
| Was there <b>at least 50 MCF</b> of natural gas vented and/or flared during this event                                                                                                                                                                                                     | Yes                                               |
| 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                                                |

|                                                           |               |
|-----------------------------------------------------------|---------------|
| <b>Equipment Involved</b>                                 |               |
| Primary Equipment Involved                                | Not answered. |
| Additional details for Equipment Involved. Please specify | Not answered. |

|                                                                                                                                                                    |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Representative Compositional Analysis of Vented or Flared Natural Gas</b><br><i>Please provide the mole percent for the percentage questions in this group.</i> |               |
| Methane (CH4) percentage                                                                                                                                           | 78            |
| 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             |
| <i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>                               |               |
| Methane (CH4) percentage quality requirement                                                                                                                       | Not answered. |
| Nitrogen (N2) percentage quality requirement                                                                                                                       | Not answered. |
| Hydrogen Sulfide (H2S) PPM quality requirement                                                                                                                     | Not answered. |
| Carbon Dioxide (CO2) percentage quality requirement                                                                                                                | Not answered. |
| Oxygen (O2) percentage quality requirement                                                                                                                         | Not answered. |

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QUESTIONS, Page 2

Action 435114

**QUESTIONS (continued)**

|                                                                                              |                                                        |
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|                                                                                              | Action Number:<br>435114                               |
|                                                                                              | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**QUESTIONS**

| Date(s) and Time(s)                            |            |
|------------------------------------------------|------------|
| Date vent or flare was discovered or commenced | 02/14/2025 |
| Time vent or flare was discovered or commenced | 06:00 AM   |
| Time vent or flare was terminated              | 04:00 PM   |
| Cumulative hours during this event             | 10         |

| Measured or Estimated Volume of Vented or Flared Natural Gas              |                                                                                                                   |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Natural Gas Vented (Mcf) Details                                          | Not answered.                                                                                                     |
| Natural Gas Flared (Mcf) Details                                          | Cause: Equipment Failure   Separator   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    | 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 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                                                      | Compressor down                                                                          |
| Steps taken to limit the duration and magnitude of vent or flare                                                                 | open valves to divert gas to a second midstream company to relieve pressure off the line |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare                                                | Clear consistent communication with midstream provider                                   |



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ACKNOWLEDGMENTS

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|                                                                                              | Action Number:<br>435114                               |
|                                                                                              | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**ACKNOWLEDGMENTS**

|                                     |                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a <b>complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.                                                                                      |
| <input checked="" type="checkbox"/> | I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively. |
| <input checked="" type="checkbox"/> | I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.                                                                                                        |
| <input checked="" type="checkbox"/> | I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.                       |
| <input checked="" type="checkbox"/> | I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.                                                                                                                          |

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CONDITIONS

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|                                                                                              | Action Number:<br>435114                               |
|                                                                                              | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

CONDITIONS

| Created By | Condition                                                                                                                                                                          | Condition Date |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| cdowning   | 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. | 2/25/2025      |