

Certificate of Analysis

Number: 6030-23010218-001A

Artesia Laboratory 200 E Main St. Artesia, NM 88210 Phone 575-746-3481

Jan. 20, 2023

Jarrett Webb Longfellow Energy 8115 Preston Rd Suite 800 Dallas, TX 75225

Donavan Station Name: Prince Fed 19A CTB Flare Sampled By: Station Number: 13243013 Sample Of: Gas Spot

Station Location: Longfellow Sample Date: 01/18/2023

Sample Conditions: 12 psig, @ 56.8 °F Ambient: 32.1 °F Sample Point: Meter Run

6030_GC6 (Inficon GC-3000 Micro) 01/18/2023 Instrument: Effective Date: Last Inst. Cal.: 01/17/2023 0:00 AM Method: GPA-2261M Analyzed: 01/19/2023 10:09:24 by EBH Cylinder No: 5030-04730

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.696 psia | | |
|---------------------------|------------------------------------|-------------|---------|-----------------------|----------------|-------|
| Hydrogen Sulfide | 0.000 | 0.04000 | 0.057 | | GPM TOTAL C2+ | 8.008 |
| Nitrogen | 1.863 | 1.92486 | 2.266 | | GPM TOTAL C3+ | 4.193 |
| Methane | 66.962 | 69.19235 | 46.648 | | GPM TOTAL iC5+ | 0.981 |
| Carbon Dioxide | 1.028 | 1.06245 | 1.965 | | | |
| Ethane | 13.777 | 14.23638 | 17.989 | 3.815 | | |
| Propane | 7.521 | 7.77197 | 14.402 | 2.146 | | |
| Iso-butane | 0.940 | 0.97080 | 2.371 | 0.318 | | |
| n-Butane | 2.292 | 2.36846 | 5.785 | 0.748 | | |
| Iso-pentane | 0.551 | 0.56956 | 1.727 | 0.209 | | |
| n-Pentane | 0.554 | 0.57235 | 1.735 | 0.208 | | |
| Hexanes Plus | 1.249 | 1.29082 | 5.055 | 0.564 | | |
| | 96.737 | 100.00000 | 100.000 | 8.008 | | |
| Calculated Physica | I Properties | Total | | C6+ | | |
| Relative Density Rea | al Gas | 0.8251 | | 3.2176 | | |
| Calculated Molecula | r Weight | 23.80 | | 93.19 | | |
| Compressibility Fact | or | 0.9954 | | | | |
| GPA 2172 Calculati | ion: | | | | | |
| Calculated Gross B | BTU per ft ³ @ 14.696 p | osia & 60°F | | | | |
| Real Gas Dry BTU | - | 1374 | | 5129 | | |
| Water Sat. Gas Base | e BTU | 1350 | | 5040 | | |
| Ideal, Gross HV - Dr | y at 14.696 psia | 1367.4 | | 5129.2 | | |
| Ideal, Gross HV - We | | 1343.5 | | 5039.7 | | |
| Comments: H2S F | Field Content 400 ppm | | | | | |

Hydrocarbon Laboratory Manager

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

Quality Assurance:

| Prince 1 | lanuary |
|-----------|---------|
| 1/8/2023 | |
| 1/9/2023 | |
| 1/10/2023 | |
| 1/11/2023 | 228 |
| 1/12/2023 | 247 |
| 1/13/2023 | |
| 1/14/2023 | 248 |
| 1/15/2023 | 241 |
| 1/16/2023 | 261 |
| 1/17/2023 | 249 |
| 1/18/2023 | 225 |
| 1/19/2023 | 198 |
| 1/20/2023 | 178 |
| 1/21/2023 | 189 |
| 1/22/2023 | 186 |
| 1/23/2023 | 174 |
| 1/24/2023 | 177 |
| 1/25/2023 | 205 |
| 1/26/2023 | |
| 1/27/2023 | 212 |
| 1/28/2023 | 216 |
| 1/29/2023 | 345 |
| 1/30/2023 | 395 |
| 1/31/2023 | 376 |

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

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 188085

DEFINITIONS

| Operator: | OGRID: |
|-----------------------|--|
| LONGFELLOW ENERGY, LP | 372210 |
| 8115 Preston Road | Action Number: |
| Dallas, TX 75225 | 188085 |
| | 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 188085

| Phone:(505) 476-3470 Fax:(505) 476-3462 | | | |
|--|-------------------------------------|---|--|
| 0 | UESTIONS | | |
| Operator: | OLOTIONO | OGRID: | |
| LONGFELLOW ENERGY, LP | | 372210 | |
| 8115 Preston Road Dallas, TX 75225 | | Action Number: 188085 | |
| Ballas, 1X 70220 | | Action Type: | |
| | | [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 v | vith the rest of the questions. | |
| Incident Well | [30-015-48302] PRINCE F | EDERAL 19B #001H | |
| Incident Facility | Unavailable. | | |
| | | | |
| Determination of Reporting Requirements | | | |
| Answer all questions that apply. The Reason(s) statements are calculated based on your answers a | and may provide addional guidant | ce. | |
| 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, major venting and/o | r 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 m | ay 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 | No | | |
| watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water | | | |
| 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 | No | | |
| existence | | | |
| Facilities and Invades of | | | |
| Equipment Involved | T | | |
| Primary Equipment Involved | Separator | | |
| | | | |
| | | | |
| Additional details for Equipment Involved. Please specify | Not answered. | | |
| | | | |
| | | | |
| <u> </u> | | | |
| Representative Compositional Analysis of Vented or Flared Natural Gas | | | |
| Please provide the mole percent for the percentage questions in this group. Methane (CH4) percentage | 60 | | |
| , ,, | 69 | | |
| Nitrogen (N2) percentage, if greater than one percent | 2 | | |
| Hydrogen Sulfide (H2S) PPM, rounded up | 400 | | |
| Carbon Dioxide (C02) percentage, if greater than one percent | 1 | | |
| Oxygen (02) percentage, if greater than one percent | 0 | | |
| 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. | 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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QUESTIONS, Page 2

Action 188085

| QUESTI | ONS (continued) |
|---|--|
| Operator: LONGFELLOW ENERGY, LP | OGRID: 372210 |
| 8115 Preston Road Dallas, TX 75225 | Action Number: 188085 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |
| QUESTIONS | |
| Date(s) and Time(s) | |
| Date vent or flare was discovered or commenced | 01/08/2023 |
| Time vent or flare was discovered or commenced | 12:00 AM |
| Time vent or flare was terminated | 08:00 PM |
| Cumulative hours during this event | 572 |
| No. and a February Alvahara (No. and a Florida No. and a State of | |
| Measured or Estimated Volume of Vented or Flared Natural Gas | |
| Natural Gas Vented (Mcf) Details | Not answered. |
| Natural Gas Flared (Mcf) Details | Cause: Initial Flowback Separator Natural Gas Flared Released: 5,576 Mcf Recovered: 0 Mcf Lost: 5,576 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. | False |
| Please explain reason for why this event was beyond this operator's control | Not answered. |
| Steps taken to limit the duration and magnitude of vent or flare | Worked with BLM to approve gas flowline ROW |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | Apply for BLM ROW at least 120 days prior to flowback. |

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ACKNOWLEDGMENTS

Action 188085

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| 8115 Preston Road | Action Number: |
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| | Action Type: |
| | [C-129] Venting and/or Flaring (C-129) |

ACKNOWLEDGMENTS

| > | 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. |
| ~ | 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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| 8115 Preston Road | Action Number: |
| Dallas, TX 75225 | 188085 |
| | Action Type: |
| | [C-129] Venting and/or Flaring (C-129) |

CONDITIONS

| Created By | Condition | Condition Date |
|---------------|--|-------------------|
| mmayo | 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. | 2/24/2023 |