



# Certificate of Analysis

Number: 6030-22080366-009A

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

Brent White  
 Contango  
 5847 San Felipe, Suite 3000  
 Houston, TX 77057

Aug. 25, 2022

Station Name: Horseshoe State CDP	Sampled By: Gene Rogers
Station Location: Contango	Sample Of: Gas Spot
Sample Point: Meter	Sample Date: 08/24/2022
Instrument: 6030_GC6 (Inficon GC-3000 Micro)	Sample Conditions: 59 psig
Last Inst. Cal.: 08/22/2022 0:00 AM	Effective Date: 08/24/2022
Analyzed: 08/25/2022 10:29:38 by KNF	Method: GPA-2261M
	Cylinder No: 1111-002669

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.000	0.60000	0.920		GPM TOTAL C2+ 6.308
Nitrogen	3.081	3.06081	3.859		GPM TOTAL C3+ 2.765
Methane	72.763	72.29595	52.193		GPM TOTAL iC5+ 0.543
Carbon Dioxide	1.793	1.78138	3.528		
Ethane	13.285	13.19995	17.861	3.543	
Propane	5.737	5.70054	11.312	1.576	
Iso-butane	0.596	0.59217	1.549	0.194	
n-Butane	1.437	1.42787	3.735	0.452	
Iso-pentane	0.297	0.29519	0.958	0.108	
n-Pentane	0.321	0.31874	1.035	0.116	
Hexanes Plus	0.732	0.72740	3.050	0.319	
	100.042	100.00000	100.000	6.308	

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C6+</b>
Relative Density Real Gas	0.7699	3.2176
Calculated Molecular Weight	22.22	93.19
Compressibility Factor	0.9962	

**GPA 2172 Calculation:**

**Calculated Gross BTU per ft³ @ 14.73 psia & 60°F**

Real Gas Dry BTU	1246	5141
Water Sat. Gas Base BTU	1225	5052
Ideal, Gross HV - Dry at 14.73 psia	1241.6	5141.1
Ideal, Gross HV - Wet	1220.0	5051.6

**Comments:** H2S Field Content 6000 ppm

Data reviewed by: Krystle Fitzwater, Laboratory Manager

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

<span style="float: right;">A</span> <i>Received by OCD: 6/17/2023 3:01:44 PM</i>	<span style="float: right;">B</span>	<span style="float: right;">C</span>	<span style="float: right;">D</span> <i>Page 2 of 7</i>
1 Units - Sub-Division	PERMIAN (NEW MEXICO) <input type="button" value="v"/>		
2			
3 Units - Pad Name <input type="button" value="t"/>	Daily Allocations - Date <input type="button" value="v"/>	Prod Gas MCFD	Flare Gas MCFD
4 <input type="button" value="+"/> HORSESHOE STATE CDP		197.1	82.01
5 <i>Grand Total Released to Imaging: 6/18/2023 2:30:18 PM</i>		<b>197.1</b>	<b>82.01</b>
6			

**District I**  
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**District IV**  
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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 229629

**DEFINITIONS**

Operator: Contango Resources, LLC 111 E. 5TH STREET FORT WORTH, TX 76102	OGRID: 330447
	Action Number: 229629
	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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QUESTIONS

Action 229629

**QUESTIONS**

Operator: Contango Resources, LLC 111 E. 5TH STREET FORT WORTH, TX 76102	OGRID: 330447
	Action Number: 229629
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

<b>Prerequisites</b>	
<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	[FAB1833233538] HORSESHOE STATE BATTERY

<b>Determination of Reporting Requirements</b>	
<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	Yes
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 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 within 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>	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	73
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	2
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 229629

**QUESTIONS (continued)**

Operator: Contango Resources, LLC 111 E. 5TH STREET FORT WORTH, TX 76102	OGRID: 330447
	Action Number: 229629
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	06/04/2023
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare 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	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure   Separator   Natural Gas Flared   Released: 82 Mcf   Recovered: 0 Mcf   Lost: 82 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	Yes
Was notification of downstream activity received by this operator	Yes
Downstream OGRID that should have notified this operator	[221115] FRONTIER FIELD SERVICES, LLC
Date notified of downstream activity requiring this vent or flare	05/29/2023
Time notified of downstream activity requiring this vent or flare	07:15 AM

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	Pipeline ruptured. High line pressure and safety.
Steps taken to limit the duration and magnitude of vent or flare	In process of setting compressors.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	In process of setting compressors.



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ACKNOWLEDGMENTS

Action 229629

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	Action Number: 229629
	Action Type: [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

Action 229629

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	Action Number: 229629
	Action Type: [C-129] Venting and/or Flaring (C-129)

**CONDITIONS**

Created By	Condition	Condition Date
rgreer2021	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.	6/18/2023