



**ARMSTRONG GAS LABS, INC.**

P.O. Box 988  
 Monahans, Texas 79756  
 (432) 943-8844 (FAX) 943-8855

**GAS ANALYSIS REPORT**

Analysis No.: 411044  
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	2.3496	0.000	0.023	
Methane	74.1056	746.124	0.410	
CO2	2.7692	0.000	0.042	
Ethane	11.2656	198.743	0.117	3.007
H2S	0.0001	0.000	0.000	
Propane	5.7297	143.714	0.087	1.576
Iso-Butane	0.7147	23.169	0.014	0.233
Butane	1.5848	51.539	0.032	0.499
Iso-Pentane	0.3976	15.858	0.010	0.145
Pentane	0.3791	15.149	0.009	0.137
Hexanes C6+	0.7040	35.997	0.023	0.307
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1230.292	0.768	5.904

**Producer:** Centennial  
**Well / Sta. Name:** Raider 502H FedCom  
**Sta. No.:** 24370  
**Formation:**  
**Field:** New Mexico  
**County:**  
**API Number:** 3002546300  
**Spot / Composite:** SP  
 Date / Time On:  
 Date / Time Off: 05/06/21  
 Date to Lab: 05/06/21  
 Date Analyzed: 05/07/21  
 Effective Date:  
 Sample Press. (PSIG): 112  
 Line Press. (PSIG): 112  
 Sample Temp. (F): 101  
 Fl. Gas Temp. (F): 101  
 Amb. Temp. (F): 60  
 Del. To:  
 Sampled By: JL  
 Cylinder No.: AGL-220

**Field H2O (#/mm):**

**Field H2S (PPM):** 0.5  
 Field H2S (Grains): 0.03

**Pressure Base: 14.65**  
**Temp. Base: 60**

Z Factor (Dry): 0.9962324  
 Z Factor (Act.): 0.9962324

Dry BTU w/ H2S: 1234.95
Sat BTU w/ H2S: 1213.81
As Del. BTU w/ H2S: 1234.95

**Dry BTU W/O H2S (Real): 1234.95**  
**Sat. BTU W/O H2S (Real): 1213.81**  
**H2O (# / mmcf): 0.0**  
**AS DEL. BTU W/O H2S (Real): 1234.95**

*BTU Calc: Dry*

**Sp. Gravity (Real): 0.7702**  
 Field Gravity:  
 Lab Gravitometer:

**GPM Ethane+ (Real): 5.904**  
**GPM Propane+ (Real): 2.897**  
**GPM IC5+ (Real): 0.589**

GPA 2145 / 2172

**Fld. Remarks: FLOW RATE 2173.14 / INITIAL FLOW**

**Lab Remarks:**

**\*Preliminary Production Data\***

<u>Well Name</u>	<u>Production Date</u>	<u>Gas Flare</u>
Raider Fed Com CTB 1	5/10/2023	139 mcf

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**District III**  
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 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 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 221273

**DEFINITIONS**

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 221273
	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 221273

**QUESTIONS**

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 221273
	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	[fAPP2220951546] Raider Fed Com CTB 1

<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	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 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	74
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	3
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 (continued)**

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**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/10/2023
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   Tank ( Any )   Natural Gas Flared   Released: 139 Mcf   Recovered: 0 Mcf   Lost: 139 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	Low pressure VRU is running-having o2 and Med pressure flare issues.
Steps taken to limit the duration and magnitude of vent or flare	Open valves to divert gas to a second midstream company to relive 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

Action 221273

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**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 221273

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**CONDITIONS**

Created By	Condition	Condition Date
chcentennial	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.	5/27/2023