

# **Pre-Plugging Methane Emissions Monitoring Report**

Haley Chaveroo 18

Prepared by TS-Nano, Inc.
For NM Energy, Minerals and Natural Resources Department, Oil Conservation Division PO# 52100-000079762

## Well information

 ID #:
 30-041-10138
 Coordinates:
 33.66221, -103.56859

 Name:
 Haley Chaveroo 18
 Surface Location:
 Roosevelt County







## **Measurement notes**

Device used: Ventbuster device VB100-0138

Test operator: Dwayne Smith

Gas sample taken from well: 5/22/25 14:00 Ventbuster connected to well: 6/12/25 8:43

Continuous monitoring of well flowrate, pressure,

and temperature

Hourly measurement of weather data

Ventbuster disconnected from well: 6/13/25 9:27

Notes: Well showed no wellhead pressure, yet gas flowed at substantial rate from well when connected to flowmeter. No gas detected on surface adjacent to well when shut-in.

Gas sample delivered to laboratory: 5/23/25

Laboratory Name/Location: Laboratory Services / Hobbs, NM



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## Measurement data

Wellhead pressure (kPa gage)\*: less than detection limit (<10 kPa)

Average flow rate (Sm³/d): 6.364

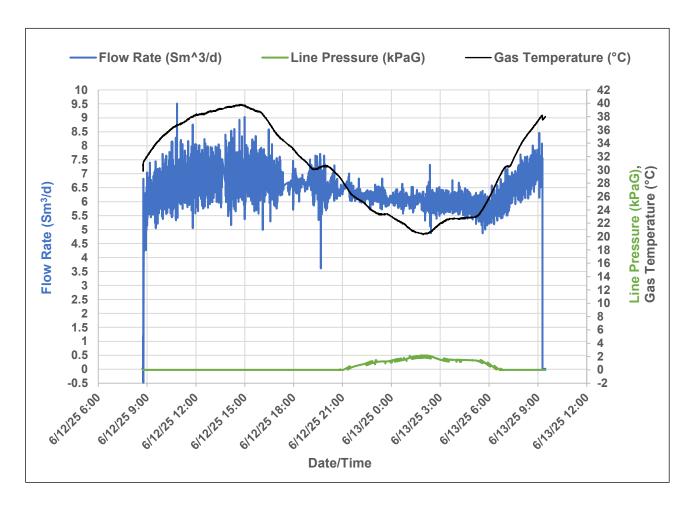
Average methane mass flow rate (g/hr)

using methane % from lab analysis: 11.83

#### Methane mass flowrate calculation

Variable	Unit	Value
Pressure (P)	kPaA	Std pressure, 101.3 KPaA
Volumetric flow (V)	Std m^3/day	Measured from the Unit
% methane	% (methane/gas)	Measured from lab sample
Temperature (T)	Kelvin	Std temperature, 288.13 K
Gas constant (R)	m^3 Pa/(K mol)	8.3144626
Molecular weight of methane (Mw)	g/mole	16.04

$$Mass\,flow\,of\,\,methane\,\, \left(\frac{g}{hr}\right) = \frac{\%, methane}{100\%} *V*P*\frac{Mw}{R\,T}*\frac{1000}{24}$$



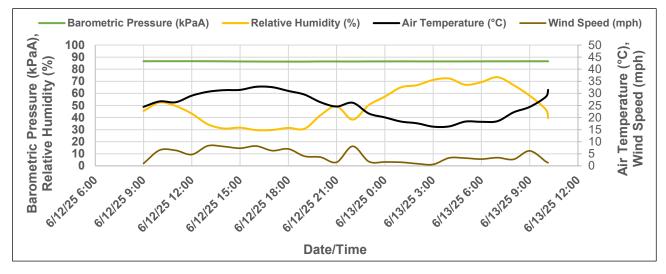


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## Weather data

Precipitation during measurement period (in): 0.000



	Air	Relative	Barometric	Wind
	Temperature	Humidity	Pressure	Speed
Date and Time	(°C)	(%)	(kPaA)	(mph)
6/12/2025 9:00	24.4	45.4	86.59	1.0
6/12/2025 10:00	26.7	52.5	86.62	6.5
6/12/2025 11:00	26.3	49.5	86.62	6.4
6/12/2025 12:00	29.1	43.2	86.62	4.7
6/12/2025 13:00	30.7	34.4	86.59	8.3
6/12/2025 14:00	31.3	30.9	86.52	8.0
6/12/2025 15:00	31.4	31.6	86.42	7.3
6/12/2025 16:00	32.7	29.6	86.35	8.2
6/12/2025 17:00	32.6	29.7	86.32	6.3
6/12/2025 18:00	31.0	31.4	86.29	7.0
6/12/2025 19:00	29.5	30.7	86.29	4.0
6/12/2025 20:00	26.3	41.9	86.42	3.6
6/12/2025 21:00	24.6	49.3	86.42	1.5
6/12/2025 22:00	26.1	38.3	86.35	8.1
6/12/2025 23:00	21.7	50.3	86.45	1.8
6/13/2025 0:00	20.1	57.3	86.45	1.6
6/13/2025 1:00	18.3	65.0	86.49	1.5
6/13/2025 2:00	17.6	66.8	86.45	0.9
6/13/2025 3:00	16.2	71.1	86.45	0.6
6/13/2025 4:00	16.3	72.3	86.45	3.3
6/13/2025 5:00	18.3	67.1	86.45	3.2
6/13/2025 6:00	18.2	69.3	86.49	2.8
6/13/2025 7:00	18.5	73.4	86.52	3.4
6/13/2025 8:00	22.2	66.8	86.52	2.7
6/13/2025 9:00	24.4	58.1	86.56	6.2
6/13/2025 10:00	28.6	46.7	86.56	1.8
6/13/2025 10:08	31.4	39.5	86.56	1.3
2025 12·20·15 PM				

Released to Imaging: 6/18/2025 12:20:15 PM





24916G 30-041-10138 HALEY CHAVEROO #18 Sample Point Code Sample Point Name Sample Point Location **Laboratory Services** 2025112701 BAG **DWAYNE SMITH - Spot** Lab File No Container Identity Source Laboratory Sampler USA **USA** USA New Mexico District Area Name Field Name Facility Name May 27, 2025 08:00 May 22, 2025 May 27, 2025 May 1, 2025 Date Sampled Date Effective Date Received Date Reported System Administrator Ambient Temp (°F) Flow Rate (Mcf) Analyst Press PSI @ Temp °F Source Conditions TS-Nano NG Lab Source Description Operator Gross Heating Values (Real, BTU/ft3) Normalized **Un-Normalized** Component **GPM** 14.696 PSI @ 60.00 °F Mol % Mol % 14.73 PSI @ 60.00 °F Drv Saturated Drv Saturated 0.0000 H2S (H2S) 0 71.6 71.3 71.8 71.5 93.2510 93.251 Nitrogen (N2) Calculated Total Sample Properties 0.0140 0.0136 CO2 (CO2) GPA2145-16 \*Calculated at Contract Conditions Relative Density Real Relative Density Ideal 6.5760 6.5755 Methane (C1) 0.9414 0.9414 Molecular Weight 0.0810 0.0814 0.0220 Ethane (C2) 27.2709 0.0020 0.0019 0.0010 Propane (C3) C6+ Group Properties 0.0000 0 0.0000 I-Butane (IC4) Assumed Composition 0.0000 0.0000 0 C6 - 60.000% N-Butane (NC4) C7 - 30.000% C8 - 10.000% 0.0174 0.0060 0.0170 Field H2S I-Pentane (IC5) 0 PPM N-Pentane (NC5) 0.0260 0.0262 0.0090 0.0330 0.033 0.0140 Hexanes Plus (C6+) PROTREND STATUS: **DATA SOURCE:** 0.0520 Passed By Validator on May 27, 2025 Imported **TOTAL** 100.0000 100.0000

Method(s): Gas C6+ - GPA 2261, Extended Gas - GPA 2286, Calculations - GPA 2172

Analyzer Information Device Type: Device Make: Device Model: Last Cal Date:

#### PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

#### VALIDATOR:

Alexus Sepeda

#### **VALIDATOR COMMENTS:**

OK

Page 5 of 7



# **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

## www.permianls.com 575.397.3713 2609 W Marland Hobbs, NM 88240

Company Name: TS- I	Nano, Inc.											В	PILL TO							Analy	/sis Re	equest	t		
Project Manager: Joh										PO#	:									Γ.		Ė			
Address: 5901 Indian School Rd. NE									Company: TS- Nano, Inc.																
City: Albuquerque	<u> </u>	State: NM Zip: 87110								Attn: Jay Kitowski															
Phone #: 505-907-4095 Email: jstormont@ts-nano.com									Address: Same					1											
Project #: Project Owner:										City:					1										
Project Name:										State: Zip:				1											
Project Location:										Phone #: 505-464-4836				1											
Sampler Name:									Phone #: 505-464-4836 Email: jkitowski@ts-nano.com					1											
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Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory <a href="https://www.emnrd.nm.gov/ocd/contact-us">https://www.emnrd.nm.gov/ocd/contact-us</a>

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

DEFINITIONS

Action 476492

#### **DEFINITIONS**

Operator:	OGRID:
RIDGEWAY ARIZONA OIL CORP.	164557
575 N. Dairy Ashford	Action Number:
Houston, TX 77079	476492
	Action Type:
	[UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

#### DEFINITIONS

The Orphan Well Mitigation Activity (OMA) forms are a subset of the OCD's forms exclusively designed for activities related to State of New Mexico's contracted plugging and reclamation activities. Specifically, these forms are used for orphan wells or associated facilities which are in a "Reclamation Fund Approved" status. This status represents wells or facilities where the OCD has acquired a hearing order allowing the OCD to perform plugging or reclamation on wells and associated facilities that no longer have a viable operator to perform the necessary work. These forms are not to be utilized for any other purpose.

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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 476492

## **QUESTIONS**

ı	Operator:	OGRID:
ı	RIDGEWAY ARIZONA OIL CORP.	164557
ı	575 N. Dairy Ashford	Action Number:
ı	Houston, TX 77079	476492
ı		Action Type:
ı		[UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

#### QUESTIONS

Prerequisites	
[OGRID] Well Operator	[164557] RIDGEWAY ARIZONA OIL CORP.
[API] Well Name and Number	[30-041-10138] HALEY CHAVEROO SA UNIT #018
Well Status	Active

Monitoring Event Information						
Please answer all the questions in this group.						
Reason For Filing	Pre-Plug Methane Monitoring					
Date of monitoring	06/12/2025					
Latitude	33.66221					
Longitude	-103.56859					

Monitoring Event Details							
Please answer all the questions in this group.							
Flow rate in cubic meters per day (m³/day)	6.36						
Test duration in hours (hr)	24.7						
Average flow temperature in degrees Celsius (°C)	30.5						
Average gauge flow pressure in kilopascals (kPag)	0.5						
Methane concentration in part per million (ppm)	65,760						
Methane emission rate in grams per hour (g/hr)	11.83						
Testing Method	Steady State						

Ī	Monitoring Contractor						
	Please answer all the questions in this group.						
	Name of monitoring contractor	TS-Nano, Inc.					