



Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo 41

Prepared by TS-Nano, Inc.
For NM Energy, Minerals and Natural Resources Department, Oil Conservation Division
PO# 52100-0000079762

Well information

ID #: 30-005-20026
Name: Haley Chaveroo 41

Coordinates: 33.64515, -103.55112
Surface Location: Roosevelt County



Measurement notes

Device used: Ventbuster device VB100-0138

Test operator: Dwayne Smith

Gas sample taken from well: 5/27/24 14:00

Ventbuster connected to well: 6/5/25 9:32

Continuous monitoring of well flowrate, pressure,
and temperature

Hourly measurement of weather data

Ventbuster disconnected from well: 6/6/25 8:01

Notes: No remarkable observations

Gas sample delivered to laboratory: 5/30/25

Laboratory Name/Location: Laboratory Services / Hobbs, NM



Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo 41

Measurement data

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

Average flow rate (Sm^3/d): 0.179

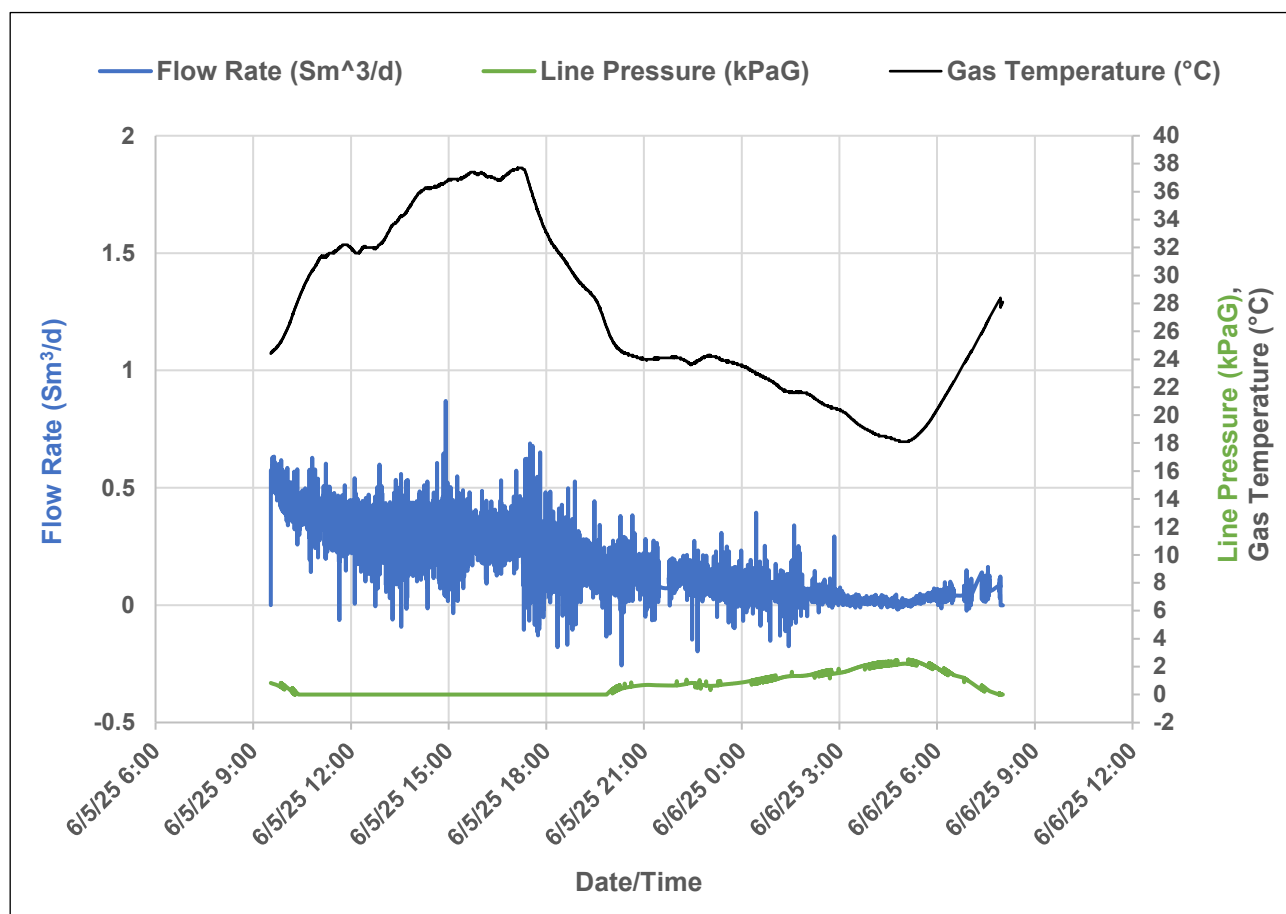
Average methane mass flow rate (g/hr)

using methane % from lab analysis: 0.30

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)	$\text{m}^3 \text{ Pa}/(\text{K mol})$	8.3144626
Molecular weight of methane (Mw)	g/mole	16.04

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



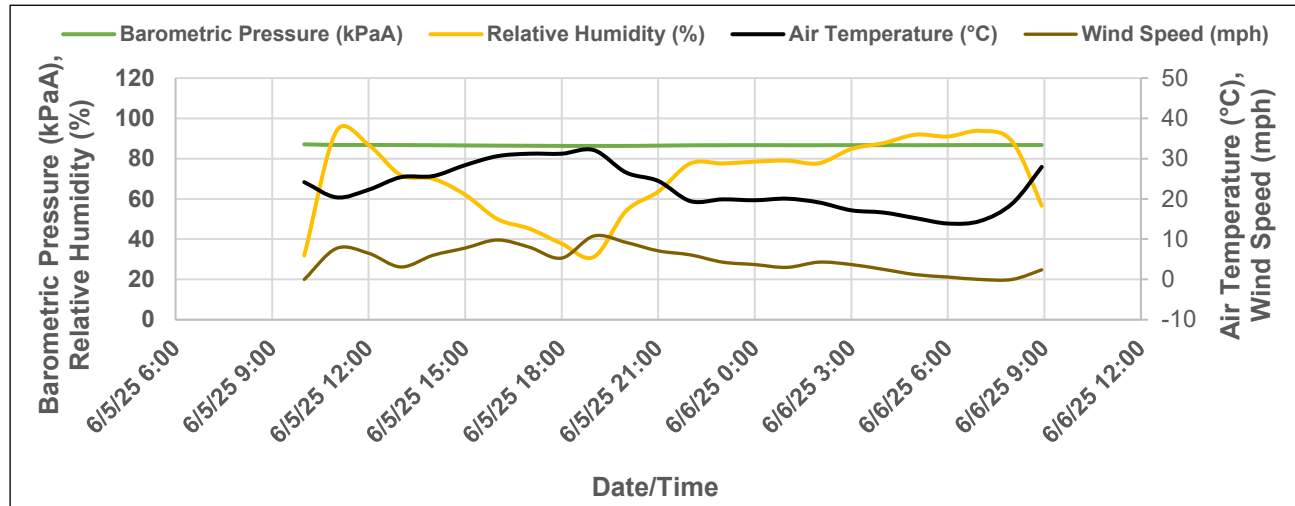


Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo 41

Weather data

Precipitation during measurement period (in): 0.000



Date and Time	Air Temperature (°C)	Relative Humidity (%)	Barometric Pressure (kPaA)	Wind Speed (mph)
6/5/2025 10:00	24.2	31.9	87.10	0.0
6/5/2025 11:00	20.4	93.7	86.79	7.7
6/5/2025 12:00	22.3	86.8	86.79	6.5
6/5/2025 13:00	25.4	71.8	86.73	3.1
6/5/2025 14:00	25.7	70.0	86.66	6.0
6/5/2025 15:00	28.4	62.1	86.56	7.8
6/5/2025 16:00	30.6	50.0	86.45	9.8
6/5/2025 17:00	31.2	45.2	86.39	8.0
6/5/2025 18:00	31.2	37.8	86.32	5.3
6/5/2025 19:00	32.1	31.2	86.32	10.8
6/5/2025 20:00	26.6	54.0	86.32	9.2
6/5/2025 21:00	24.4	63.6	86.45	7.1
6/5/2025 22:00	19.4	77.6	86.62	6.1
6/5/2025 23:00	19.9	77.6	86.66	4.3
6/6/2025 0:00	19.7	78.5	86.69	3.7
6/6/2025 1:00	20.1	79.0	86.66	3.0
6/6/2025 2:00	19.1	77.7	86.66	4.3
6/6/2025 3:00	17.2	84.8	86.69	3.7
6/6/2025 4:00	16.6	87.7	86.69	2.5
6/6/2025 5:00	15.2	91.9	86.66	1.2
6/6/2025 6:00	13.9	91.0	86.69	0.6
6/6/2025 7:00	14.5	93.8	86.73	0.0
6/6/2025 8:00	18.8	88.5	86.73	0.0



25038G

Sample Point Code

30-005-20026

Sample Point Name

HALEY CHAVEROO #41

Sample Point Location

Laboratory Services

Source Laboratory

2025113066

Lab File No

BAG

Container Identity

DWAYNE - Spot

Sampler

USA

District

USA

Area Name

USA

Field Name

New Mexico

Facility Name

May 27, 2025

Date Sampled

May 1, 2025

Date Effective

May 30, 2025 14:28

Date Received

Jun 2, 2025

Date Reported

Admin

Ambient Temp (°F)

Flow Rate (Mcf)

Analyst

Press PSI @ Temp °F
Source Conditions

TS-Nano

Operator

NG

Lab Source Description

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	93.0260	93.0257	
CO2 (CO2)	0.4600	0.45994	
Methane (C1)	5.8740	5.87364	
Ethane (C2)	0.1820	0.18226	0.0490
Propane (C3)	0.0470	0.04736	0.0130
I-Butane (IC4)	0.0000	0	0.0000
N-Butane (NC4)	0.0420	0.04173	0.0130
I-Pentane (IC5)	0.0000	0	0.0000
N-Pentane (NC5)	0.0000	0	0.0000
Hexanes Plus (C6+)	0.3690	0.36937	0.1600
TOTAL	100.0000	100.0000	0.2350

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

Analyzer Information

Device Type: Gas Chromatograph Device Make: Shimadzu
 Device Model: GC-2014 Last Cal Date: May 27, 2025

Gross Heating Values (Real, BTU/ft³)

14.696 PSI @ 60.00 Å°F	14.73 PSI @ 60.00 Å°F
Dry	Saturated
84.3	83.7
Dry	Saturated
84.5	83.9

Calculated Total Sample Properties

GPA2145-16 *Calculated at Contract Conditions

Relative Density Real	Relative Density Ideal
0.9545	0.9545
Molecular Weight	
27.6483	

C6+ Group Properties

Assumed Composition

C6 - 60.000%	C7 - 30.000%	C8 - 10.000%
--------------	--------------	--------------

Field H2S
0 PPM

PROTREND STATUS:

Passed By Validator on Jun 2, 2025

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

VALIDATOR:

Alexus Sepeda

VALIDATOR COMMENTS:

OK



www.permianls.com

575.397.3713 2609 W Marland Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: TS- Nano, Inc.										BILL TO					Analysis Request																				
Project Manager: John Stormont										PO #:																									
Address: 5901 Indian School Rd. NE										Company: TS- Nano, Inc.																									
City: Albuquerque				State: NM			Zip: 87110			Attn: Jay Kitowski																									
Phone #: 505-907-4095				Email: jstormont@ts-nano.com						Address: Same																									
Project #:				Project Owner:						City:																									
Project Name:										State:																				Zip:					
Project Location:										Phone #: 505-464-4836																									
Sampler Name:										Email: jkitowski@ts-nano.com																									
Lab I.D.	Sample I.D.	(S)POT or (C)OMP	# Container	Matrix						Preserve			Sampling		C-6+ RGA	C-10+ Ext																			
				Groudwater	Wastewater	GAS	Oil	Solid	Other	Acid/Base	Ice/Cool	Other	Date	Time																					
						X										X																			
	HALEY CHAVEROO #13	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #25	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #17	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #19	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #41	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #18	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #24	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #28	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #4	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #40	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #36	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #39	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #33	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #34	S	BAG			X								30-May	2PM	X																			
	HALEY CHAVEROO #35	S	BAG			X								30-May	2PM	X																			
				30-May-25		Received by:				Phone Result:					☐ Yes ☐ No		Add'l Phone:																		
				Time: 2 pm						Email Result:					☐ Yes ☐ No																				
Relinquished by				Date:		Received by:				REMARKS:																									
				Time:																															
Deliver by: (circle one)						Sample Condition						Checked by																							
						Cool Intact						(Initials)																							
						Yes ☐ Yes ☐																													
						No ☐ No ☐																													
Sampler - UPS - Bus - other:																																			

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

DEFINITIONS

Action 472438

DEFINITIONS

Operator: RIDGEWAY ARIZONA OIL CORP. 575 N. Dairy Ashford Houston, TX 77079	OGRID: 164557
	Action Number: 472438
	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.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 472438

QUESTIONS

Operator: RIDGEWAY ARIZONA OIL CORP. 575 N. Dairy Ashford Houston, TX 77079	OGRID: 164557
	Action Number: 472438
	Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

QUESTIONS

Prerequisites	
[OGRID] Well Operator	[164557] RIDGEWAY ARIZONA OIL CORP.
[API] Well Name and Number	[30-005-20026] HALEY CHAVEROO SA UNIT #041
Well Status	Active

Monitoring Event Information	
<i>Please answer all the questions in this group.</i>	
Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	06/05/2025
Latitude	33.64515
Longitude	-103.55112

Monitoring Event Details	
<i>Please answer all the questions in this group.</i>	
Flow rate in cubic meters per day (m³/day)	0.18
Test duration in hours (hr)	22.5
Average flow temperature in degrees Celsius (°C)	27.4
Average gauge flow pressure in kilopascals (kPag)	0.7
Methane concentration in part per million (ppm)	58,740
Methane emission rate in grams per hour (g/hr)	0.30
Testing Method	Steady State

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