TS-NANO

Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo #40

Prepared by TS-Nano, Inc.
For NM Energy, Minerals and Natural Resources Department, Oil Conservation Division
PO# 52100-0000079752

Well information

ID #: 30-005-20792
Name: Haley Chaveroo #40
Coordinates: 33.6478, -103.555542
Surface Location: Roosevelt County

Measurement notes

Device used: VentMedic #DC9447
Test operator: Dwayne Smith

Gas sample taken from well: 5/27/25 14:05
VentMedic connected to well: 6/9/25 12:34
Continuous monitoring of well flowrate, pressure, temperature, and methane concentration
Hourly measurement of weather data
VentMedic disconnected from well: 6/10/25 9:36
Notes: wellhead pressure of 1930 kPa (280 psi). Bled overnight.

Gas sample delivered to laboratory: 5/30/25
Laboratory Name/Location: Laboratory Services / Hobbs, NM

TS-NANO

Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo #40

Measurement data

Wellhead pressure (kPa gage):* 1930 kPa

Average flow rate (L/min): 5.882

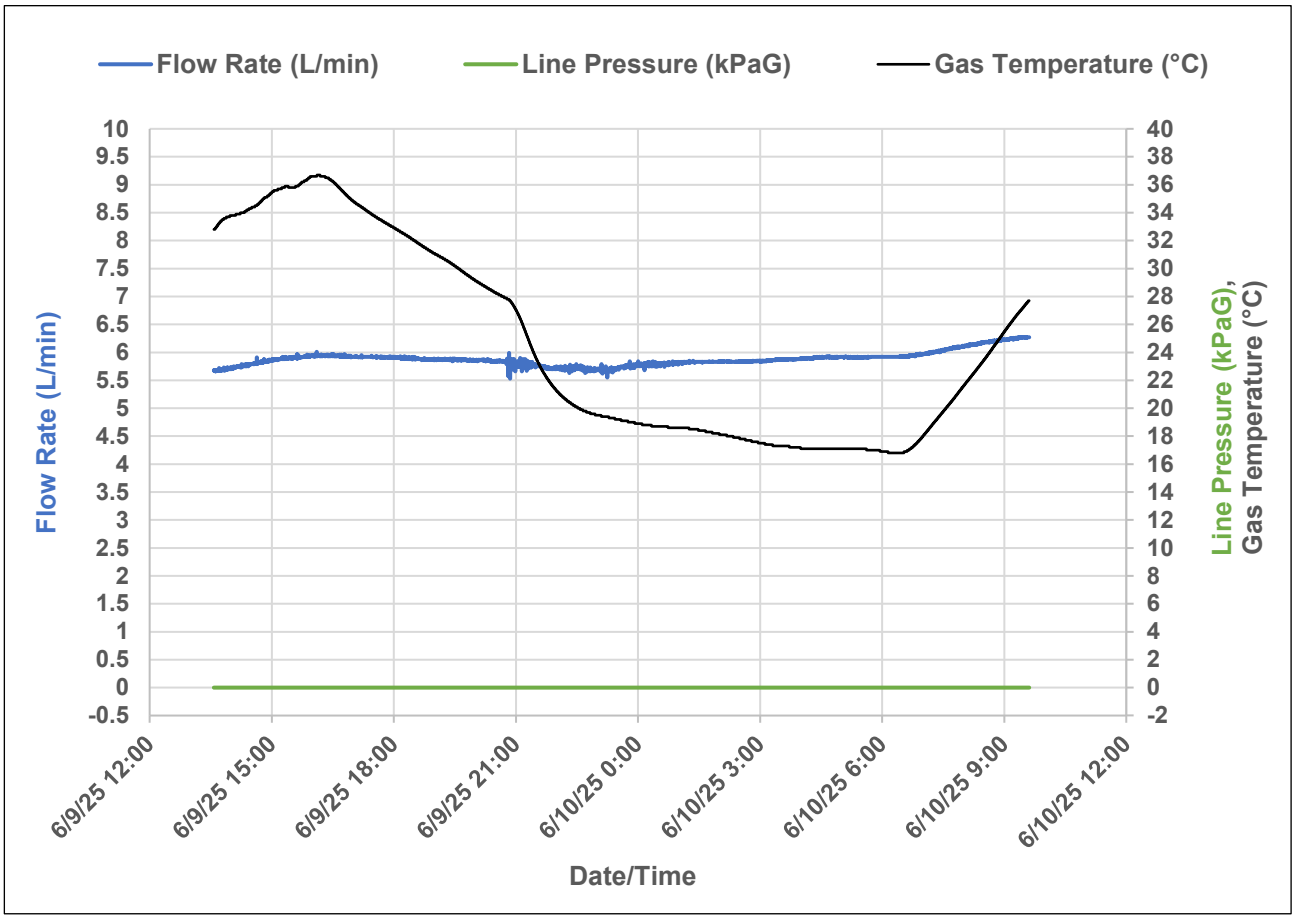
Average methane mass flow rate (g/hr)

using methane % from lab analysis: 0.220

Methane mass flowrate calculation

Variable	Unit	Value
Pressure (P)	kPaA	Measured from the Unit
Volumetric flow (V)	L gas/min	Measured from the Unit
% methane	% (methane/gas)	Measured from Unit or sample
Temperature (T)	Kelvin	Measured from the Unit
Gas constant (R)	Atmosphere·L/(mole·Kelvin)	0.0821
Molecular weight of methane (Mw)	g/mole	16.04

$$Mass\ flow\ of\ methane\ \left(\frac{g}{hr}\right) = \frac{\%, methane}{100\%} * V * P * \frac{Mw}{R\ T} * \frac{60}{101.3}$$



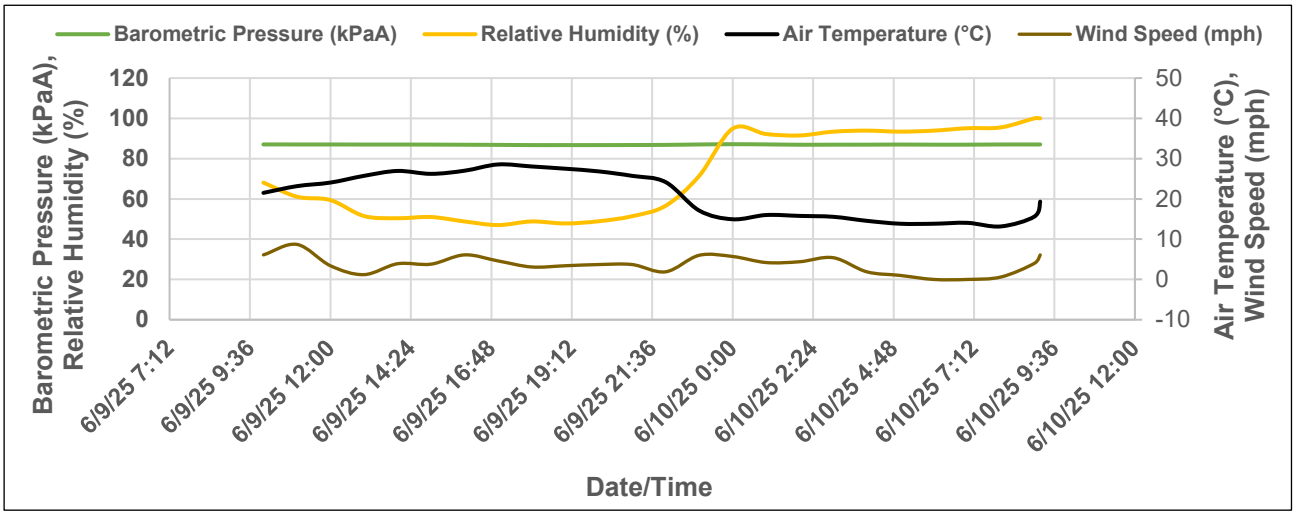
TS-NANO

Pre-Plugging Methane Emissions Monitoring Report

Haley Chaveroo #40

Weather data

Precipitation during measurement period (in): 0.000



Date and Time	Air Temperature (°C)	Relative Humidity (%)	Barometric Pressure (kPaA)	Wind Speed (mph)
6/9/2025 10:00	21.5	68.1	87.06	6.1
6/9/2025 11:00	23.2	61.1	87.03	8.7
6/9/2025 12:00	24.1	59.4	87.03	3.4
6/9/2025 13:00	25.7	51.5	87.00	1.2
6/9/2025 14:00	26.9	50.4	87.00	3.9
6/9/2025 15:00	26.2	51.0	86.96	3.8
6/9/2025 16:00	27.0	48.8	86.89	6.1
6/9/2025 17:00	28.6	47.0	86.83	4.6
6/9/2025 18:00	28.1	48.8	86.73	3.1
6/9/2025 19:00	27.5	47.8	86.73	3.4
6/9/2025 20:00	26.8	48.9	86.73	3.7
6/9/2025 21:00	25.7	51.4	86.76	3.7
6/9/2025 22:00	24.2	56.6	86.83	1.9
6/9/2025 23:00	17.1	71.4	87.03	6.0
6/10/2025 0:00	14.9	94.9	87.17	5.7
6/10/2025 1:00	16.0	92.2	87.06	4.2
6/10/2025 2:00	15.8	91.5	86.89	4.4
6/10/2025 3:00	15.6	93.4	86.93	5.4
6/10/2025 4:00	14.6	93.9	86.93	1.9
6/10/2025 5:00	13.8	93.4	87.00	1.0
6/10/2025 6:00	13.8	93.9	86.93	0.0
6/10/2025 7:00	14.1	95.1	86.93	0.0
6/10/2025 8:00	13.2	95.5	87.03	0.6
6/10/2025 9:00	15.6	100.0	87.03	4.0
6/10/2025 9:10	19.3	100.0	87.03	6.1

LABORATORY SERVICES Natural Gas Analysis

PREMIER Measurement & Lab Services

C6+ Gas Analysis Report

Sample Point Code	Sample Point Name	Sample Point Location
25035G	30-005-20792	HALEY CHAVEROO #40

Source Laboratory	Lab File No	Container Identity	Sampler
Laboratory Services	2025113061	BAG	DWAYNE - Spot

District	Area Name	Field Name	Facility Name
USA	USA	USA	New Mexico

Date Sampled	Date Effective	Date Received	Date Reported
May 27, 2025	May 1, 2025	May 30, 2025 14:17	Jun 2, 2025

Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions
		Admin	

Operator	Lab Source Description
TS-Nano	NG

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	93.6920	93.6914	
CO2 (CO2)	1.1490	1.14932	
Methane (C1)	0.1270	0.12734	
Ethane (C2)	1.0270	1.02661	0.2750
Propane (C3)	2.0990	2.0995	0.5780
I-Butane (IC4)	0.4240	0.42391	0.1390
N-Butane (NC4)	0.8870	0.88731	0.2800
I-Pentane (IC5)	0.2770	0.27665	0.1010
N-Pentane (NC5)	0.1860	0.18609	0.0670
Hexanes Plus (C6+)	0.1320	0.13186	0.0570
TOTAL	100.0000	100.0000	1.4970

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 Â°F		14.73 PSI @ 60.00 Â°F	
Dry	Saturated	Dry	Saturated
140.8	139.2	141.1	139.5

Calculated Total Sample Properties

GPA2145-16 *Calculated at Contract Conditions

Relative Density Real	Relative Density Ideal
1.0093	1.0091

Molecular Weight: 29.2258

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

LABORATORY SERVICES
Natural Gas Analysis
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**
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

				Matrix						Preserve			Sampling		Analysis Request												
Lab I.D.	Sample I.D.	(S)POT or (C)OMP	# Container	Groudwater	Wastewater	GAS	Oil	Solid	Other	Acid/Base	Ice/Cool	Other	Date	Time	C-6+ RGA	C-10+ Ext											
						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												

Dwayne Smith	30-May-25 Time: 2 pm	Received by:	Phone Result: ☐ Yes ☐ No Add'l Phone:
Relinquished by	Date: Time:	Received by:	Email Result: ☐ Yes ☐ No REMARKS:

Deliver by: (circle one) Sampler - UPS - Bus - other:	Sample Condition Cool: Yes ☐ No ☐ Intact: Yes ☐ No ☐	Checked by (Initials)

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

Operator: RIDGEWAY ARIZONA OIL CORP. 575 N. Dairy Ashford Houston, TX 77079	OGRID: 164557
	Action Number: 479256
	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 479256

QUESTIONS

Operator: RIDGEWAY ARIZONA OIL CORP. 575 N. Dairy Ashford Houston, TX 77079	OGRID: 164557
	Action Number: 479256
	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	**[30-005-20792] HALEY CHAVEROO SA UNIT #040**
Well Status	**Active**

Monitoring Event Information *Please answer all the questions in this group.*	
Reason For Filing	**Pre-Plug Methane Monitoring**
Date of monitoring	06/09/2025
Latitude	33.64780
Longitude	-103.555542

Monitoring Event Details *Please answer all the questions in this group.*	
Flow rate in cubic meters per day (m^3/day)	8.47
Test duration in hours (hr)	21.1
Average flow temperature in degrees Celsius (°C)	24.5
Average gauge flow pressure in kilopascals (kPag)	3.7
Methane concentration in part per million (ppm)	1,270
Methane emission rate in grams per hour (g/hr)	0.22
Testing Method	Steady State

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