



Orphan Well Pre Plugging Methane Quantification Report

Start Date: Sat Jan 21 2023 20:56:43 GMT+0000 (Coordinated Universal Time)
 End Date: Mon Jan 23 2023 18:07:37 GMT+0000 (Coordinated Universal Time)
 Device: VB100-0029
 Well Licensee: 30-005-20103
 Well Name: Cato San Andres Unit 119
 UW: 30-005-20103
 Well License Number: 30-005-20103
 Surface Location: State of NM
 Bottom Hole Location: Unknown

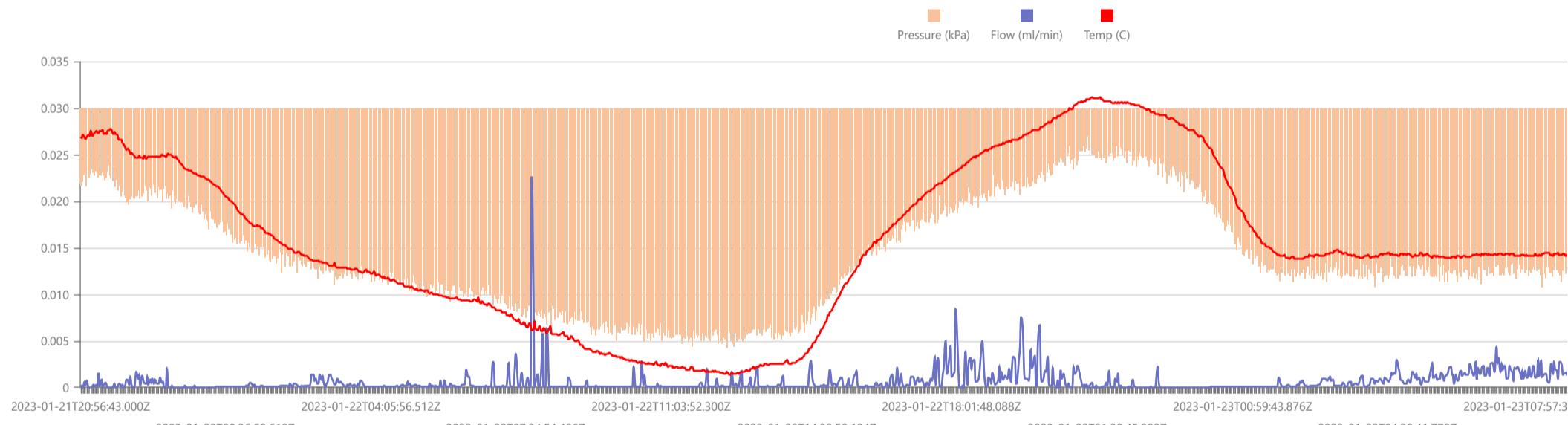
Test Operator: Sean O. Jacobson
 Authorized By: State of NM
 Test Reason: IIJA Pre Plugging
 Scope Of Work: 12 Hour
 AFE Number: 52100-00000073108
 GPS: 33.61438,-103.86557
 Notes: GTG
 Prepared By: Curtis Shuck, QMS

Flow / Pressure Test

Flow Duration	Average Flowrate	Average Pressure	Average Flow Temperature	Average CH4 Mass
45 hrs 9 minutes Duration	0.0009 m3/d	-6.4608 kPag	0.2401 °C	0.00 g/hr CH4 Concentration

Methane Calculation: 717 grams CH4 per cubic meter ($717 \text{ g/m}^3 \times 0.0009 \text{ m}^3/\text{day} = 0.65 \text{ g/day}$ total /24 = 0.03 g/hour x 0 (methane concentration) = **0.00 g/hour CH4**). **Methane, gas** weighs 0.000717 gram per cubic centimeter or 0.717 kilogram per cubic meter, i.e. density of methane, gas is equal to 0.717 kg/m³; at 0°C (32°F or 273.15K) at standard atmospheric pressure. In imperial or US customary measurement system, the density is equal to 0.0448 pound per cubic foot [lb/ft³], or 0.0004144 ounce per cubic inch [oz/inch³].

Flow / Pressure / Temperature Timeseries



#	Date	Note
1	2023-01-23	Arrived 11:15am January 23rd, 2023. Rigged down ventbuster.
2	2023-01-21	Arrived 1:15pm January 21st, 2023. Conducted field gas analysis then collected gas sample. Rigged up ventbuster #29 for flow testing.

Weather in Roswell, January 21

Weather Forecast for January 21 in Roswell, New Mexico - temperature, wind, atmospheric pressure, humidity and precipitations. Detailed hourly weather chart.

January 19	January 20	Select date: <input type="button" value="▼"/>	January 22	January 23
January 21, 2023				
Atmospheric conditions and temperature °F	RealFeel °F	Atmospheric pressure inHg	Wind speed mph	Humidity
Night	+34°	+27°	26.3 NW 7.6	36%
Morning	+25°	+19°	26.3 SE 4.9	50%
Day	+50°	+50°	26.4 NW 15.4	19%
Evening	+43°	+36°	26.4 NW 11.9	26%

Weather in Roswell, January 22

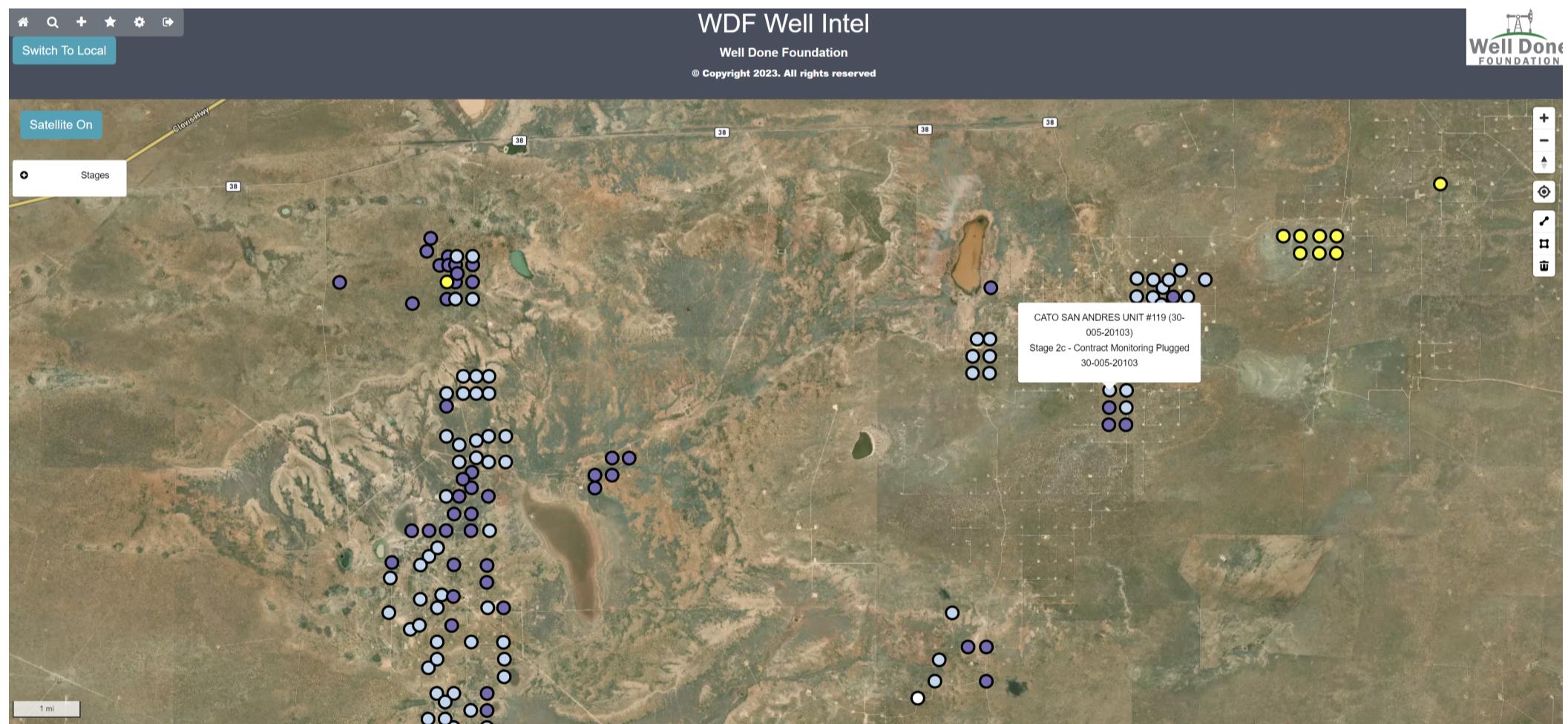
Weather Forecast for January 22 in Roswell, New Mexico - temperature, wind, atmospheric pressure, humidity and precipitations. Detailed hourly weather chart.

January 20	January 21	Select date: <input type="button" value="▼"/>	January 23	January 24
January 22, 2023				
Atmospheric conditions and temperature °F	RealFeel °F	Atmospheric pressure inHg	Wind speed mph	Humidity
Night	+28°	+25°	26.3 NW 4.3	51%
Morning	+19°	+19°	26.3 SE 2.5	58%
Day	+50°	+46°	26.3 SE 8.1	19%
Evening	+41°	+36°	26.2 SE 7.4	24%

Weather in Roswell, January 23

Weather Forecast for January 23 in Roswell, New Mexico - temperature, wind, atmospheric pressure, humidity and precipitations. Detailed hourly weather chart.

January 21	January 22	Select date: <input type="button" value="▼"/>	January 24	January 25
January 23, 2023				
Atmospheric conditions and temperature °F	RealFeel °F	Atmospheric pressure inHg	Wind speed mph	Humidity
Night	+30°	+25°	26.2 SE 6.5	40%
Morning	+28°	+21°	26.3 N 5.8	51%
Day	+45°	+39°	26.3 SE 10.1	31%
Evening	+36°	+28°	26.2 E 9.8	44%





15887G

CSAU #119 Pre Plug

CSA #119

Sample Point Code

Sample Point Name

Sample Point Location

Laboratory Services	2023063326	Tedlar Bag	SOJ - Spot
Source Laboratory	Lab File No	Container Identity	Sampler
USA	USA	USA	New Mexico
District	Area Name	Field Name	Facility Name
Jan 21, 2023 14:05	Jan 21, 2023 14:05	Jan 27, 2023 10:51	Jan 30, 2023
Date Sampled	Date Effective	Date Received	Date Reported
Torrance			
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst	Press PSI @ Temp °F Source Conditions

Well Done Foundation

NG

Operator

Lab Source Description

Component	Normalized Mol %	Un-Normalized Mol %	GPM
H2S (H2S)	0.0000	0	
Nitrogen (N2)	99.3600	99.35753	
CO2 (CO2)	0.0440	0.04393	
Methane (C1)	0.0000	0	
Ethane (C2)	0.0340	0.03424	0.0090
Propane (C3)	0.0520	0.05235	0.0140
I-Butane (IC4)	0.0110	0.01147	0.0040
N-Butane (NC4)	0.0450	0.04548	0.0140
I-Pentane (IC5)	0.0310	0.03135	0.0110
N-Pentane (NC5)	0.0460	0.04643	0.0170
Hexanes Plus (C6+)	0.3770	0.37723	0.1640
TOTAL	100.0000	100.0000	0.2330

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

Gross Heating Values (Real, BTU/ft³)			
14.696 PSI @ 60.00 °F		14.73 PSI @ 60.00 °F	
Dry	Saturated	Dry	Saturated
26.3	26.7	26.4	26.8
Calculated Total Sample Properties			
GPA2145-16 *Calculated at Contract Conditions			
Relative Density Real		Relative Density Ideal	
0.9779		0.9780	
Molecular Weight		28.3260	
C6+ Group Properties			
Assumed Composition		C6 - 60.0000% C7 - 30.000% C8 - 10.000%	
Field H2S 0 PPM			

PROTREND STATUS:

Passed By Validator on Jan 31, 2023

DATA SOURCE:

Imported

PASSED BY VALIDATOR REASON:

First sample taken @ this point, composition looks reasonable

VALIDATOR:

Brooke Rush

VALIDATOR COMMENTS:

OK

Source	Date	Notes
Brooke Rush	Jan 31, 2023 9:20 pm	Methane = 0 PPM
Brooke Rush	Jan 31, 2023 9:20 pm	Methane = 0 PPM

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
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 278233

DEFINITIONS

Operator:	OGRID: 248802
CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	Action Number: 278233
	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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QUESTIONS

Action 278233

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Operator: CANO PETRO OF NEW MEXICO, INC. 801 Cherry Street Fort Worth, TX 76102	OGRID: 248802
	Action Number: 278233
	Action Type: [UF-OMA] Pre-Plug Methane Monitoring (UF-OMA-MMA)

QUESTIONS

Prerequisites	
[OGRID] Well Operator	[248802] CANO PETRO OF NEW MEXICO, INC.
[API] Well Name and Number	[30-005-20103] CATO SAN ANDRES UNIT #119
Well Status	Reclamation Fund Approved

Monitoring Event Information*Please answer all the questions in this group.*

Reason For Filing	Pre-Plug Methane Monitoring
Date of monitoring	01/21/2023
Latitude	33.61438
Longitude	-103.86557

Monitoring Event Details*Please answer all the questions in this group.*

Flow rate in cubic meters per day (m ³ /day)	0.00
Test duration in hours (hr)	45.0
Average flow temperature in degrees Celsius (°C)	0.2
Average gauge flow pressure in kilopascals (kPag)	-6.4
Methane concentration in part per million (ppm)	0
Methane emission rate in grams per hour (g/hr)	0.00
Testing Method	Steady State

Monitoring Contractor*Please answer all the questions in this group.*

Name of monitoring contractor	Well Done New Mexico LLC
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