

## **Pre Plugging Methane Quantification Test Report**

Report Prepared By Curtis Shuck, QMS

**Start Date:** Tue Mar 07 2023 19:33:37 GMT+0000

(Coordinated Universal Time)

**End Date:** Wed Mar 08 2023 18:26:35 GMT+0000

(Coordinated Universal Time)

**Test Time Subset**: 2023-03-07T19:33:37.000Z -

2023-03-08T18:25:36.434Z

Device: VB100-0040

Well Licensee: 30-005-60693

Well Name: Kuchemanne 003

UWI: 30-005-60693

Well License Number: 30-005-60693

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:
 52100-000078660

 GPS:
 33.59702,-104.02758

Notes: GTG

### **Orphan Well Flow Test Results**

Average Flowrate  0.045 scf/hr	Average Flow Temperature <b>57.43</b>	Average Flow Pressure <b>0.5797</b>	Flow Duration 1371.99 min	Methane Concentration 0.17 %	Methane Emissions 0.86 g/hr	Benzene N/A ppm
scf/hr	57.43   °⊧		min	%	g/hr	
	1	psi				

Annual Emission Rate =  $(\bar{x}Qmeasured) \times (Concmeasured) \times p \times 0.454 \times 8,760$ 

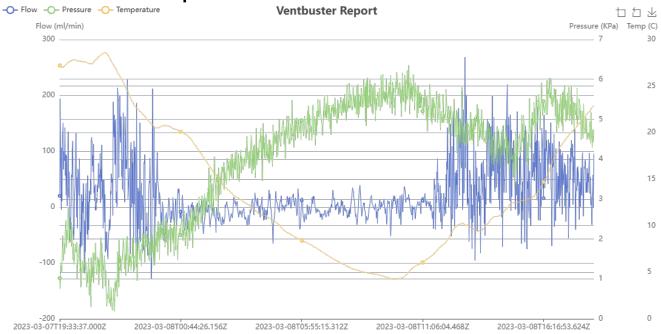
### Methane Calculation:

 $(\bar{x}Qmeasured)$  0.045 scf/hr x (Concmeasured) 0.17= 0.5 scf CH4/hr Methane Flow x (p) x .0423 x .454 x 8,760 = null CH4 kg/yr Emission Rate

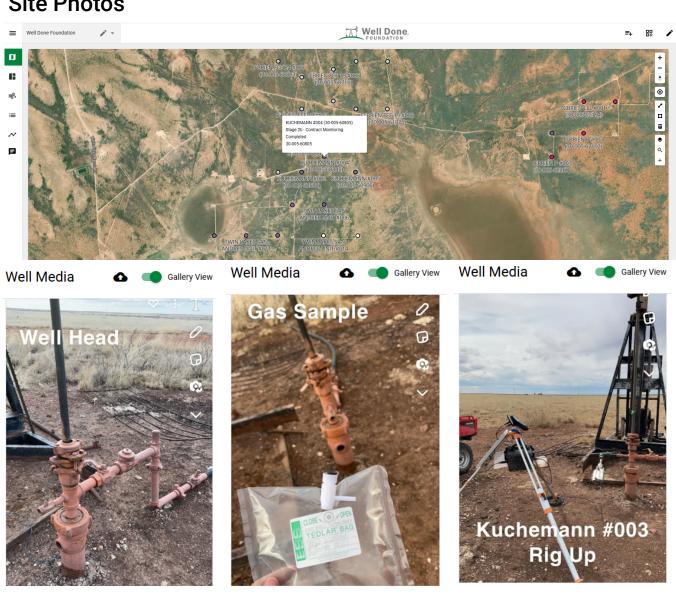
### Where:

Qmeasured - scf/hr total measured flow Concmeasured - methane concentration measured p - 0.0423 methane density at 1 atm; 60° F 0.454 - Conversion from lb to kg 8760 - Conversion from hr to yr

## Flow/Pressure/Temperature Timeseries



## **Site Photos**



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



16096G		Kucherman #003				Kucherman #003	
Sample Point Code		Sample Point Name				Sample Po	int Location
Laboratory Se	nuices	2023064	650	Tedlar Bag	c	S.O. Jacobson -	Snot
Source Labora		2023064659 Lab File No		Container Identity		Sampler	эрос
	tory		10	,		•	
USA		USA		USA		New Mexico	
District		Area Name		Field Name		Facility Name	
Feb 21, 2023 16	:03	Feb 21, 2023 16:03		Feb 27, 2023 10:50			r 1, 2023
Date Sampled		Date	e Effective	Da	te Received	Dat	te Reported
		System Admir					
Ambient Temp (°F)	Flow Rate (Mcf)	Analyst		Press PSI @ Temp °F Source Conditions			
Well Done Found	lation					NG	
Operator					I	_ab Source Descrip	otion
	Normalized	Un-Normalized		Gro	oss Heating Valu	es (Real, BTU/	ft³)
Component	Mol %	Mol %	GPM	14.696 PSI @	_	-	@ 60.00 °F
H2S (H2S)	0.0000	0		Dry	Saturated	Dry	Saturated
Nitrogen (N2)	99.2360	99.238		20.4	21.00	20.4	21.00
	+	<del> </del>			alculated Total S		
CO2 (CO2)	0.0450	0.045		Relative Der	PA2145-16 *Calculated nsity Real		ns Density Ideal
Methane (C1)	0.1680	0.168		0.97	27		9728
Ethane (C2)	0.1100	0.11	0.0290	Molecular 28.1			
Propane (C3)	0.1510	0.151	0.0420				
I-Butane (IC4)	0.0250	0.025	0.0080	7	C6+ Group Assumed Co	-	
N-Butane (NC4)	0.0640	0.064	0.0200	C6 - 60.000%		•	8 - 10.000%
I-Pentane (IC5)	0.0290	0.029	0.0110		Field		
N-Pentane (NC5)	0.0000	0	0.0000	╡┃	0 PI	PM	
Hexanes Plus (C6+)	0.1720	0.172	0.0750	DROTDEND STATUS		DATA SO	NIBCE.
TOTAL	100.0000	100.0020	0.1850	PROTREND STATUS: Passed By Validato			
lethod(s): Gas C6+ - GPA 2261, Extende	d Gas - GPA 2286, Calcula	ations - GPA 2172		PASSED BY VALIDAT Close enough to be		sonable.	
	Analyzer Informa	ntion		VALIDATOR:			
Device Type: Gas Chromato	•	e Make: Shimadz	u	Luis Cano			
Device Model: GC-2014		al Date: Feb 13,		VALIDATOR COMME	NTS:		
		Nakaa		J OK			
	Date	Notes					
Luis Cano Mar 3,	2023 7:45 am	Methane: 1,680 P	'PM				

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 494952

### **DEFINITIONS**

Operator:	OGRID:
CANYON E & P COMPANY	269864
251 O'Connor Ridge Blvd.	Action Number:
Irving, TX 75038	494952
	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 494952

### **QUESTIONS**

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### QUESTIONS

Prerequisites		
[OGRID] Well Operator	[269864] CANYON E & P COMPANY	
[API] Well Name and Number	[30-005-60693] KUCHEMANN #003	
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	03/07/2023	
Latitude	33.5970535	
Longitude	-104.0274506	

Monitoring Event Details		
Please answer all the questions in this group.		
Flow rate in cubic meters per day (m³/day)	0.00	
Test duration in hours (hr)	22.8	
Average flow temperature in degrees Celsius (°C)	14.1	
Average gauge flow pressure in kilopascals (kPag)	4.0	
Methane concentration in part per million (ppm)	1,680	
Methane emission rate in grams per hour (g/hr)	0.86	
Testing Method	Steady State	

Monitoring Contractor		
Please answer all the questions in this group.		
Name of monitoring contractor	WELL DONE NEW MEXICO LLC	