

R-30,
N-SAMPLE

03680.01

BLM BRADENHEAD IGNACIO-BLANCO FIELD TEST REPORT FORM

Lease #: ☐ I22IND _____ Well Name KILSMAN 33-8 14-2 # _____ API# Req'd ☒ #05-067- 08743
☐ MOO-C _____ Operator RWPC Date: 8/8/21 ☐ #05-083- _____
☐ 14-20- _____ ☐ #05-007- _____
☐ 75 _____
☐ COC _____ QQ: NESH Sec 14 Twp 33 (N) Range 8 (W) Minerals: Federal-Indian-State-Fee
☒ FEE/CA#: _____

Well Status: On-Line (Flowing/Pumping/Plunger lift/Clock/Intermitter; Shut-in (GSI/TA), P&A Type: Gas SWD Injection POW
 Number of Casings if known: (circle) Two Two with liner Three Three with liner

STEP 1: CLOSE all BLM & approved-to-vent surface & intermediate VALVES 10-14 days prior to test. (BLM well BHD valves shall normally be closed unless specific BLM authorization has been approved to vent casing to atmosphere as a remediation procedure.)

STEP 2: CERTIFY that all buried valves are in OPEN position:

If Buried Bradenhead vlv, Confirmed Open? Y/N

If Buried Intermediate vlv, Confirmed Open? Y/N

Expose piping for all BLM witnessed tests to demonstrate that buried valve is "open".

STEP 3: USING calibrated mechanical (2# accuracy) or digital Gauge, MEASURE Initial Tubing & Casing Pressures & Record on chart. Too small to measure = "TSTM".

STEP 4: If initial Surface casing is >25# (>5# within sensitive areas) SAMPLE All Casings (surface, intermediate, production) using 10 individual cylinder purges &

record cylinder #s 5007 (s) _____ (l) 6226 (p).

STEP 5: Open & flow Bhd vlv. monitoring flow Character. Record other casing pressures within 1st 5 min, then @ 5, 10, 15, 20, 25, 30min. Record Surface Csg. flow characteristic. "Required time to monitor" on reverse. IF < 5 min. to blow down show in "elapsed time" column of Chart; Record below the time to "whisper" & time to "no flow" if different.

BHD to "w" in ____ min ____ sec & to "NF" in ____ min 2 sec.

INT to "w" in ____ min ____ sec & to "NF" in ____ min ____ sec

STEP 6: Record flow characteristic by letters: NF=no flow; D=gas diminished to no flow; G=continuous gas, W= whisper, V=vapor; S=surge; VAC=vacuum H=water; M=mud.

Water/mud character (circle): clear, fresh, salty, sulfur, black (Sample analysis to be submitted with BHD test to BLM)

STEP 7: CLOSE ALL VALVES unless approved to vent.

REMARKS:

Note size of valve: BHD: 1/2" needle valve or 1/2" 1/4" 1" 2"
 INTERMEDIATE: 1/2" needle valve or 1/2" 1/4" 1"

2" Clarifying remarks:

Tested by: LAWRENCE BARTLEY (signature) Lawrence Bartley
 (print name) Phone: 970 749 7838 DATE: 8/8/21

Witnessed by _____ BLM/COGCC

BRADENHEAD TEST RECORDING

Elapsed time	Tubing Fm	Tubing Fm	Prod. Casing	Intermed. Casing	Surface Casing
Initial Pressure	#	# <u>48</u>	# <u>48</u>	#	# <u>69</u> Pressure
<u>2</u> Min:Sec	#	# <u>48</u>	# <u>48</u>	#	Flow Char. <u>NF</u>
05:00					Flow Char.
10:00					Flow Char.
15:00					Flow Char.
20:00					Flow Char.
25:00					Flow Char.
30:00					Flow Char.
					Instantaneous Ending Pressure <u>TSTM</u>

INTERMEDIATE TEST RECORDING

(If Intermediate Casing pressure decreases during Bradenhead Test)

Elapsed Time	Tubing Fm	Tubing Fm	Prod. Casing	Intermed. Casing
Initial Pressure	#	#	#	# Pressure
<u>2</u> Min:Sec	#	#	#	Flow Char.
05:00				Flow Char.
10:00				Flow Char.
15:00				Flow Char.
20:00				Flow Char.
25:00				Flow Char.
30:00				Flow Char.
				Ending Pressure

Provided as a Courtesy of Southern Ute Tribal Government

COFY

8/26/21



Well Name: KLUSMAN 33-8 #14-2;

API #:

Source: BRADENHEAD

Sample Type: GAS

Analysis No: RW2021065

Cust No: 67500-15380

Well/Lease Information

Customer Name: RED WILLOW PRODUCTION CO

Well Name: KLUSMAN 33-8 #14-2; BHD

County/State: LA PLATA CO

Location:

Lease/PA/CA: RUN 30

Formation: PC

Cust. Stn. No.:

0140601

Source: BRADENHEAD

Well Flowing: Y

Pressure: 48 PSIG

Flow Temp: 94 DEG. F

Ambient Temp: 88 DEG. F

Flow Rate: 111 MCF/D

Sample Method: Purge & Fill

Sample Date: 08/08/2021

Sample Time: 2.00 PM

Sampled By: L BARTLEY

Sampled by (CO): RWPC

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3931	0.2409	0.0430	0.00	0.0038
CO2	0.0131	0.0080	0.0020	0.00	0.0002
Methane	97.7647	59.9081	16.6050	987.42	0.5415
Ethane	1.3737	0.8418	0.3680	24.31	0.0143
Propane	0.2779	0.1703	0.0770	6.99	0.0042
Iso-Butane	0.0509	0.0312	0.0170	1.66	0.0010
N-Butane	0.0630	0.0386	0.0200	2.06	0.0013
I-Pentane	0.0197	0.0121	0.0070	0.79	0.0005
N-Pentane	0.0162	0.0099	0.0060	0.65	0.0004
Hexane Plus	0.0277	0.0170	0.0120	1.46	0.0009
Total	100.0000	61.2779	17.1570	1025.33	0.5681

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
BTU/CU.FT IDEAL: 1027.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1029.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1012.0
DRY BTU @ 15.025: 1050.5
REAL SPECIFIC GRAVITY: 0.5691

CYLINDER #: 5007
CYLINDER PRESSURE: 32 PSIG
ANALYSIS DATE: 08/18/2021
ANALYSIS TIME: 04:26:48 PM
ANALYSIS RUN BY: RICHARD WILSON

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 08/25/2021

GC Method: C6+ Gas



RED WILLOW PRODUCTION CO
WELL ANALYSIS COMPARISON

Lease: KLUSMAN 33-8 #14-2; BHD
Stn. No.:
Mtr. No.: 0140601

BRADENHEAD
PC

08/25/2021
67500-15380

Smpl Date: 08/08/2021
Test Date: 08/18/2021
Run No: RW2021065
Nitrogen: 0.3931
CO2: 0.0131
Methane: 97.7647
Ethane: 1.3737
Propane: 0.2779
I-Butane: 0.0509
N-Butane: 0.0630
I-Pentane: 0.0197
N-Pentane: 0.0162
Hexane+: 0.0277
BTU: 1029.9
GPM: 17.1570
SPG: 0.5691



Well Name: KLUSMAN 33-8 #14-2;
 API #:
 Source: CASING
 Sample Type: GAS
 Analysis No: RW2021064
 Cust No: 67500-15375

Well/Lease Information

Customer Name:	RED WILLOW PRODUCTION CO	Source:	CASING
Well Name:	KLUSMAN 33-8 #14-2; CSG	Well Flowing:	Y
County/State:	LA PLATA CO	Pressure:	48 PSIG
Location:		Flow Temp:	94 DEG. F
Lease/PA/CA:	RUN 30	Ambient Temp:	88 DEG. F
Formation:	PC	Flow Rate:	111 MCF/D
Cust. Stn. No.:		Sample Method:	Purge & Fill
	0140601	Sample Date:	08/08/2021
		Sample Time:	2.00 PM
		Sampled By:	L BARTLEY
		Sampled by (CO):	RWPC
Heat Trace:	N		
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0913	0.0898	0.0100	0.00	0.0009
CO2	3.9316	3.8674	0.6720	0.00	0.0597
Methane	95.7173	94.1531	16.2570	966.74	0.5302
Ethane	0.2436	0.2396	0.0650	4.31	0.0025
Propane	0.0124	0.0122	0.0030	0.31	0.0002
Iso-Butane	0.0014	0.0014	0.0000	0.05	0.0000
N-Butane	0.0024	0.0024	0.0010	0.08	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0000	0.0000	0.0000	0.00	0.0000
Total	100.0000	98.3659	17.0080	971.49	0.5936

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0021	CYLINDER #:	6226
BTU/CU.FT IDEAL:	973.7	CYLINDER PRESSURE:	46 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	975.8	ANALYSIS DATE:	08/18/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	958.8	ANALYSIS TIME:	03:33:36 PM
DRY BTU @ 15.025:	995.3	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.5946		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 08/25/2021

GC Method: C6+ Gas



RED WILLOW PRODUCTION CO
WELL ANALYSIS COMPARISON

Lease: KLUSMAN 33-8 #14-2; CSG
Stn. No.:
Mtr. No.: 0140601

CASING
PC

08/25/2021
67500-15375

Smpl Date: 08/08/2021
Test Date: 08/18/2021
Run No: RW2021064
Nitrogen: 0.0913
CO2: 3.9316
Methane: 95.7173
Ethane: 0.2436
Propane: 0.0124
I-Butane: 0.0014
N-Butane: 0.0024
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0000
BTU: 975.8
GPM: 17.0080
SPG: 0.5946

WELL NAME: Klusman 33-8-14 #2 **FIELD:** Ignacio Blanco **Zone #:** 03630.01
STATE: Colorado **COUNTY:** La Plata **FORMATION:** Fruitland Coal
API NO: 05-067-08943 **SRF LOC:** 15 33N 07W **SPUD DATE:** 06/13/04
TD (Vert): 3156' **PBTD:** 3094' **BHL:** n/a **TD DATE:**
CMPL DATE:
ELEVATION: 6632' GR
Pumping Unit: Lufkin 228-213-86 w/42 hp

PIPE RECORD								CEMENT & HO	
	OD	GRADE	THD	WT/FT	TOP	BTM	# JTS	HOLE SIZE	DEPTH
Srf Csg	8 5/8"	J55	STC	23.00#	0'	435'	10	12 1/4"	
Prod Csg	5 1/2"	J55	LTC	17.00#	0'	3156'	71	7 7/8"	
Tbg	2 3/8"	160			0'	#REF!	#REF!		

HISTORY		PERFORATION	
06/13/04	Well spud by SG Interests I, Ltd.	DATE	TOP
05/12/05	Begin completion operations by SRC w/Key rig #3	05/13/05	3013'
05/13/05	Perf 3013-3016, 2931-2936	05/13/05	2931'
05/14/05	Frac w/2500 gal 15-20# Silver Stim LT-X linked gel and 72,500# 20/40 Brady sand w/sandwedge. Perf 2882-2892, Frac w/25,000 gal 15-20# Silver Stim LT-X linked gel and 72,000# 20/40 Brady sand w/sandwedge. Perf 2729-2734, 2740-2743 & 2809-2822', Frac w/44,000 gal 15-20# Silver Stim LT-X linked gel and 130,000# 20/40 Brady sand w/sandwedge	05/14/05	2882'
06/2008	Tag 82' fill @ 3012', land tbg @ 3044.94', run pump & rods, put back on production	05/14/05	2729'
01/27-29/10	Pull rods & pump (tbg went on vac), pulled tbg (no bad jts) - tag fill @ 3044', CO to 3094', flw csg, tag fill @ 3093', land tbg @ 3047.6, put to prod	05/14/05	2740'
12/29/14	Acid job found hole in it 9 from surface	05/14/05	2734'

Pkr/Tbg Detail as of 12/14	ID (in)	Jts	Length (ft)	Depth (ft)	Rod/Pump Detail as of 12/14
KB				12.00	1 1/4" x 22' polish rod with 12' x 1 1/2" line
Tubing hanger w/ seal sleeve				12.00	2-6' 3/4" plain pony rods
2 3/8" 4.7# J55 EUE 8rd tbg		95	3001.85	3013.85	114 3/4" molded guided rods and picked up 5 new 3/4" g
Expendable Check SN			0.80	3014.65	7/8" x 4' stabilizer rod with molded guides
					2" x 1 1/2" x 14' RWAC-Z HVR top cup insert pump (Serial # 439)
				EOT @ (KB)	3044.00

Updated By D.Buchtel 5/14/15
 C.Lewis 2/14/19