

APR 26 1988

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special						Test Date 4-18-88			
Company POGO PRODUCING				Connection TO AIR NEW WELL					
Pool BOOT LEG RIDGE				Formation MORROW				Unit	
Completion Date 4-15-88		Total Depth 15261		Plug Back TD 15207		Elevation 3678		Farm or Lease Name W.B.R. FEDERAL	
Coq. Size 5.000	Wt. 18	d 4.276	Set At 15246	Perforations: From 14678 To 14742		Well No. 1			
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 14621	Perforations: From OPEN To ENDED		Unit Sec. Twp. Rge. 13 22S 32E			
Type Well - Single - Drdthead - G.G. or G.O. Multiple SINGLE						Packer Set At 14621		County LEA	
Producing Thru TUBING		Reservoir Temp. °F 230 • 14710		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 14710	H 14710	G _g 0.674	% CO ₂ 1.14	% N ₂ 0.27	% H ₂ S 0	Prover 0	Meter Run 4.026	Taps FLNG	

FLOW DATA						TUBING DATA		BHP DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2067	72	3309	230	72 HRS
1.	4.026	1.250	220	3.0	70	1785	72	2908	230	60 MIN	
2.	4.026	1.250	220	6.0	78	1550	73	2634	230	60 MIN	
3.	4.026	1.250	220	11.0	80	1220	73	2383	230	60 MIN	
4.	4.026	1.250	225	18.0	80	591	74	1962	230	60 MIN	
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compress. Factor, F _{pv}	Rate of Flow Q, Mc/d
1	7.47	26.45	233.2	0.9905	1.2181	1.0230	244
2	7.47	37.41	233.2	0.9831	1.2181	1.0222	342
3	7.47	50.65	233.2	0.9813	1.2181	1.0220	462
4	7.47	65.48	238.2	0.9813	1.2181	1.0225	598
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.35	530	1.40	0.955	47.539	61.0	0.674	XXXXXX	673	379
2	0.35	538	1.42	0.957				XXXXXX		
3	0.35	540	1.42	0.957				XXXXXX		
4	0.35	540	1.42	0.956				XXXXXX		
5										

NO.	P _i	P _w	P _w ²	P _i ² - P _w ²
1		1887	3561	1074
2		1713	2933	1701
3		1557	2425	2209
4		1300	1689	2946
5				

(1) $\frac{P_c^2}{P_i^2 - P_w^2} = 1.5735$

AOF = Q $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 941$

(2) $\left[\frac{P_c^2}{P_i^2 - P_w^2} \right]^n = 1.5735$

Absolute Open Flow	941	Mc/d @ 15.025	Angle of Slope	45°	Slope, n	1.000
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Remarks: BOTTOM HOLE PRESSURES W/AMARADA PRESSURE BOMBS
PRODUCED 1.4 BBLS CONDENSATE & 0 BBLS H₂O DURING 4 HR TEST

Approved By Division SPXTON	Conducted By Bennett & Cathey	Calculated By Richard Townley	Checked By
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