

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

/Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-5-78	
Company Southland Royalty Company				Connection Southern Union Gathering			
Pool Blanco				Formation Mesa Verde		Unit	
Completion Date 3-23-78		Total Depth 5425'		Plug Back TD 5361'		Elevation 6267' GR	
Farm or Lease Name Patterson "B" Com							
Casing Size 7.000		Wt. 10.50#		ID 6.456		Set At 2918-5425'	
Perforations: From 4771' To 4958'		Well No. #1A		Unit L		Sec. Twp. R. 2-31N-12W	
Tubg. Size 2.375		Wt. 4.7#		ID 1.995		Set At 5325'	
Perforations: From 5062' To 5359'		County San Juan		State New Mexico		Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single	
Producing Thru Tbg.		Reservoir Temp. °F 		Mean Annual Temp. °F 		Baro. Press. - P _a 12.2	
L		H		Gg .700		% CO ₂ % N ₂ % H ₂ S	
Prover		Meter Run		Taps		Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single	

FLOW DATA						TUBING DATA		CASING 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.	
SI							842		797	
1.	2"	X 3/4"					260		750	1 hr
2.							247		739	2 hrs
3.							230		725	3 hrs
4.										
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. Comp. Factor, F _{spv}	Rate of Flow Q, Mcf/d
1	12.365		242.2	1.0000	.9258	1.0000	2,773
2.							
3.							
4.							
5.							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons	Deq.
2.					Specific Gravity Separator Gas	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X
4.					Critical Pressure	P.S.I.A. P.S.I.A.
5.					Critical Temperature	R R

NO.	P _f	P _w	P _w ²	P _c ² - P _w ²
1		737.2	543,464	186,194
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.9188$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.7853$

AOI = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7,724$

AOI = 7,724

Absolute Open Flow 7,724 Mcf @ 15.025	Angle of Slope 75
---	----------------------

Remarks:

Approved By Commission	Conducted By Charles Saiz	Calculated By James Smith	Checked By
------------------------	------------------------------	------------------------------	------------