

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-11-84	
Company Southland Royalty Company			Connection Southern Union Gathering		
Pool Otero			Formation Chacra		Unit
Completion Date 5-22-84		Total Depth 6595'		Plug Back TD 6549'	
				Elevation 5784' GL	
Farm or Lease Name McClanahan					
Csq. Size 5.500	Wt. 15.50#	d 4.950	Set At 6595'	Perforations: From To	
Tq. Size 1.900	Wt. 2.76#	d 1.610	Set At 3025.99'	Perforations: From 2912' To 3042'	
Type Well - Single - Brdhead - G.G. or G.O. Multiple Multiple				Packer Set At 4506.99'	
Producing Thru Tubing		Reservoir Temp. °F 8		Baro. Press. - P _a 12.2	
				State New Mexico	
L	H	G _g .700	% CO ₂	% N ₂	% H ₂ S
				Prover	
				Meter Run	
				Taps	

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.	Temp. °F	
SI							978		980		
1.	2" X 3/4"						168		475		1 hr
2.							138		369		2 hrs
3.							121		337		3 hrs
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	12.365		133.2	1.0000	.9258	1.0000	1525
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 _____ Deg.
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

P _c 992.2	P _c ² 984460.8		
NO.	P _i ²	P _w	P _w ² P _c ² - P _w ²
1		349.2	121940.6 862520.2
2			
3			
4			
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.1414$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1684$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1043$$

Absolute Open Flow	1684	Mcfd @ 15.025	Angle of Slope θ	Slope, n .75
--------------------	------	---------------	------------------	--------------

Remarks:			
Approved By Division		Conducted By: Don Thompson	Calculated By: James W. Smith
		Checked By: C. Terry Hobbs	