

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2-10-82	
Company Southland Royalty Company				Connection Southern Union Gathering		
Pool Basin				Formation Dakota		Unit
Completion Date 1-16-82		Total Depth 6705'		Plug Back TD 6642'		Elevation 5777' GL
Farm or Lease Name Cooper						
Csq. Size 5.500	Wt. 15.5#	d 4.950	Set At 6681'	Perforations: From To		Well No. 3-E
Tbg. Size 1.900	Wt. 2.9#	d 1.610	Set At 3811'	Perforations: From 6387' To 6548'		Unit Sec. Twp. Rge. I 6 29N 11W
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At 3752'		County San Juan
Producing Thru Tubing		Reservoir Temp. °F θ		Mean Annual Temp. °F		State New Mexico
L	H	Gg .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. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1596				
1.	2"	X	3/4"				149				1 hr
2.							175				2 hrs
3.							204				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		216.2	1.0000	.9258	1.0000	2475
2.							
3.							
4.							
5.							

NO.	P _t	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	
3.					Specific Gravity Flowing Fluid	
4.					Critical Pressure	P.S.I.A.
5.					Critical Temperature	R

P _c 1608.2	P _c ² 2586307.2	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0184$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0138$
NO. 1	P _t ² 216.2	P _w ² 46742.4	P _c ² - P _w ² 2539564.8
2.			
3.			
4.			
5.			

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2509$

Absolute Open Flow	2509	Mcf @ 15.025	Angle of Slope θ	Slope, n .75
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Remarks:

Approved By Division	Conducted By: Kelly Maxwell	Calculated By: James Smith	Checked By: R. E. Fielder
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