

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-13-81	
Company Southland Royalty Company				Connection Southern Union Gathering	
Pool Blanco				Unit Mesa Verde	
Completion Date 4-18-81		Total Depth 5030'		Plug Back TD 4985'	
Elevation 6323' GR		Farm or Lease Name Hanks			
Csq. Size 5.500	Wt. 14#	d 5.012	Set At 5029'	Perforations: From To	
Trq. Size 1.900	Wt. 2.90#	d 1.610	Set At 4927'	Perforations: From 4649' To 4958'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At 3594'	
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F 12.2	
County San Juan		State New Mexico			
L	H	Gq .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.	
SI							30			
1.	2"	X	3/4"				0			1 hr
2.							0			2 hrs
3.							0			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		12.2	1.0000	.9258	1.0000	140
2.							
3.							
4.							
5.							

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

$P_c = 42.2$ $P_c^2 = 1780.8$

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		12.2	148.8	1632.0
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0912$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0676$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 149$

Absolute Open Flow	149	Mcf/d @ 15.025	Angle of Slope	°	Slope, n	.75
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Remarks:

Approved by Division	Conducted By: Steve Kellenaers	Calculated By: James Smith	Checked By: L.O. Van Ryan
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