

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 5-28-81	
Company Southland Royalty Company				Connection Southern Union Gathering		
Pool Blanco				Formation Mesa Verde		Unit
Completion Date 5-11-81		Total Depth 6800'		Plug Back TD 6710'		Elevation 5725' GR
Farm or Lease Name Hare		Well No. 18-M				
Csq. Size 7.625 5.500	Wt. 26.4# 15.5#	d 6.969 4.950	Set At 2490' 6749'	Perforations: Point Lookout From 4020' To 4304'		Unit Soc. Twp. Rge. P 10 29N 10W
Tsq. Size 1.900	Wt. 2.76#	d 1.610	Set At 4508'	Perforations: Menefee From 4349' To 4493'		County San Juan
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. G. - Multiple				Packer Set At 4577'		State New Mexico
Producing Thru Tubing		Reservoir Temp. °F θ		Mean Annual Temp. °F		Baro. Press. - P _g 12.2
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.	
SI							1088		1107	
1.	2"	x	3/4"				145		767	1 hr
2.							132		701	2 hrs
3.							120		661	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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	12.365		132.2	1.0000	.9258	1.0000	1513
2.							
3.							
4.							
5.							

NO.	P _t	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	Mc/Lbl.	Deq.
1.												
2.												
3.												
4.												
5.												

$P_c = 1119.2$ $P_c^2 = 1252608.6$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.5669$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4005$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		673.2	453198.2	799410.4				
2								
3								
4								
5								

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2119$				
Absolute Open Flow <u>2119</u> Mcfd @ 15.025 Angle of Slope θ Slope, n <u>.75</u>				
Remarks:				
Approved By Division Conducted By: <u>Dean Lingo</u> Calculated By: <u>James Smith</u> Checked By: <u>L. O. Van Ryan</u>				