

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

JUL 1 1991

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-11-91		OIL CON. DIV. (DIST. 3)	
Company SOUTHLAND ROYALTY CO.				Connection SUNTERRA GAS GATHERING CO.			
Pool BASIN/ARMENTA				Formation DAKOTA/GALLUP		Unit	
Completion Date 6/27/91		Total Depth 6634		Plug back TD 6588		Elevation 5777 GL	
Cac. Size 5.500		WI. 15.5		Set At 4.950		Perforations: Gallup From 5446 To 5770	
Fing. Size 2.375		WI. 4.70		Set At 1.995		Perforations: Dakota From 6329 To 6397	
Type Well - Single - Airsenhead - G.C. or G.O. Multiple Single - Commingled				Packer Set At N/A		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F •		Mean Annual Temp. °F		Baro. Press. - P _a 12.2	
State New Mexico							
L	H	G _g	% 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		
1	2"		.750				580		580			
2							71		472	61		1 hr
3							62		428	64		2 hrs
4							59		389	63		3 hrs
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 _{sp}	Rate of Flow Q, Mcfd
1	12.365		71.2	1.0000	.9258	1.000	815.06
2							
3							
4							
5							

NO.	P _r	Temp. °R	T _r	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 592.2 P _c ² 350,700.84			
NO.	P _r ²	P _w ²	P _r ² - P _w ²
1	401.2	160961.	189739
2			
3			
4			
5			

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.8483$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1292.04$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.5852$

Absolute Open Flow	1292.04	Mcf/d @ 15.025	Angle of Slope @	Slope, n	0.75
Remarks:					

Approved By Division	Conducted By: R. McKen	Calculated By: K. Maxwell	Checked By:
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