

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test					Test Date						
<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					8-6-81						
Company				Connection							
Southland Royalty Company				Southern Union Gathering							
Pool				Formation				Unit			
Basin				Dakota							
Completion Date		Total Depth		Plug Back TD		Elevation		Farm or Lease Name			
4-20-81		6640'		6599'		5733' GR		Cooper "B"			
Csq. Size	Wt.	d	Set At	Perforations:		Well No.					
5.500	15.5#	4.950	6640'	From 6366' To 6573'		1-E					
Tbg. Size	Wt.	d	Set At	Perforations:		Unit		Sec.	Twp.		
2.375	4.7#	1.995	6534'	From To		P		7	29N 11W		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple					Packer Set At			County			
Single - G.G.					-----			San Juan			
Producing Thru		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _a		State			
Tubing		θ				12.2		New Mexico			
L	H	G _g	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps			
		.700									
FLOW DATA					TUBING DATA			CASING DATA		Duration	
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	of Flow
SI							843		1001		
1.	2"	X	3/4"				103		458		1 hr
2.							49		368		2 hrs
3.							37		348		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		49.2	1.0000	.9258	1.0000	563				
2.											
3.											
4.											
5.											
NO.	R _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 X				
3.					Specific Gravity Flowing Fluid _____						
4.					Critical Pressure _____ P.S.I.A.		P.S.I.A.				
5.					Critical Temperature _____ R		R				
$P_c = 1013.2$ $P_c^2 = 1026574.2$											
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1447$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1066$				
1		360.2	129744.0	896830.2							
2											
3											
4											
5											
AOF = Q					$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 623$						
Absolute Open Flow					623 Mcfd @ 15.025		Angle of Slope θ		Slope, n		
									.75		
Remarks:											
Approved By Division			Conducted By:			Calculated By:			Checked By:		
			Kelly Maxwell			James Smith			L. O. Van Ryan		

