

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Williams Production Company					Lease or Unit Name ROSA UNIT				
Test Type X Initial Annual Special			Test Date 10/3/98		Well Number #170				
Completion Date 9/5/98		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng N 21 31N 6W	
Casing Size		Weight d		Set At		Perforations: From To		County RIO ARRIBA	
Tubing Size		Weight d		Set At		Perforations: From To		Pool BLANCO	
Type Well - Single-Bradenhead-GG or GO Multiple				Packer Set At		Formation MV			
Producing Thru Tubing		Reservoir Temp. oF		Mean Annual Temp. oF			Barometer Pressure - Pa		Connection
L	H	Gq 0.6	%CO2	%N2	%H2S		Prover 3/4"	Meter Run	Taps

FLOW DATA					TUBING DATA		CASING DATA		
NO	Prover Line Size	X Orifice Size	Pressure p.s.i.q	Temperature oF	Pressure p.s.i.q	Temperature oF	Pressure p.s.i.q	Temperature oF	Duration of Flow
SI	2" X 3/4"				1052		1059		0
1					381	57	956		0.5 hr
2					367	60	891		1.0 hr
3					352	62	848		1.5 hrs
4					344	64	818		2.0 hrs
5					322	66	771		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor FI	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	9.604					334	0.9943	1.29	1.036	4263
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration					Mcf/bbl.
1					A.P.I Gravity of Liquid Hydrocabrons _____					Deq.
2					Specific Gravity Separator _____					
3					Specific Gravity Flowing Fluid xxxxxxxxxx					XXXXXX
4					Critical Pressure _____ p.s.i.a.					____ p.s.i.a.
5					Critical Temperature _____ R					____ R
Pc	1071	Pc ²	1147041							
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} =$ 2.14821					(2) $\frac{Pc^{2n}}{Pc^2 - Pw^2} =$ 1.7744
1		783	613089	533952						
2										
3										
4					AOF = Q $\frac{Pc^{2n}}{Pc^2 - Pw^2} =$ 7564					
Absolute Open Flow		7564	Mcf/d @ 15.025		Angle of Slope _____			Slope, n 0.75		

Remarks:			
Approved By Commission:		Conducted By:	
Calculated By:		Checked By:	