

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 9/24/98		Well Number #12A				
Completion Date 9/14/98		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng J 15 31 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"				1012		1010		0
1					371	60	883		0.5 hr
2					342	63	811		1.0 hr
3					322	66	764		1.5 hrs
4					304	68	731		2.0 hrs
5					282	72	684		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor F1	Gravity Factor Fq	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	9.604					294	0.9887	1.29	1.034	3724
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration _____ A.P.I Gravity of Liquid Hydrocabrons _____ Specific Gravity Separator _____ Specific Gravity Flowing Fluid <u>XXXXXXXXXX</u> Critical Pressure _____ p.s.i.a. Critical Temperature _____ R					Mcf/bbl. Deq. XXXXXX ____ p.s.i.a. ____ R
Pc	1022	Pc ²	1044484							
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} = \underline{1.8649235}$ (2) $\frac{Pc^{2-n}}{Pc^2 - Pw^2} = \underline{1.5959}$					
1		696	484416	560068						
2										
3										
4					AOF = Q $\frac{Pc^{2-n}}{Pc^2 - Pw^2} = \underline{5943}$					
Absolute Open Flow		5943	Mcf/d @ 15.025		Angle of Slope _____			Slope, n 0.75		

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