

**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 11/28/98		Well Number #160A				
Completion Date 11/13/98		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng N 25 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"				997		1012		0
1					384	58	931		0.5 hr
2					369	63	902		1.0 hr
3					363	63	873		1.5 hrs
4					352	65	857		2.0 hrs
5					341	68	824		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor Fl	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	9.604					353	0.9924	1.29	1.04	4514
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl. A.P.I Gravity of Liquid Hydrocabrons _____ Deq. Specific Gravity Separator _____ Specific Gravity Flowing Fluid xxxxxxxxxxxx XXXXXX Critical Pressure _____ p.s.i.a. _____ p.s.i.a. Critical Temperature _____ R _____ R					
Pc	1024	Pc ²	1048576							
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $Pc^2 = \frac{2.9986731}{Pc^2 - Pw^2}$ (2) $Pc^{2n} = \frac{2.2788}{Pc^2 - Pw^2}$					
1		836	698896	349680						
2										
3										
4					AOF = Q $\frac{Pc^{2n}}{Pc^2 - Pw^2} = \frac{10286}{Pc^2 - Pw^2}$					
Absolute Open Flow		10286		Mcf/d @ 15.025		Angle of Slope _____		Slope, n		0.75

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