

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

Operator <b>Williams Production Company</b>				Lease or Unit Name <b>ROSA UNIT</b>			
Test Type <b>X Initial</b> <b>Annual</b> <b>Special</b>		Test Date <b>6/25/99</b>		Well Number <b>#34A</b>			
Completion Date <b>6/11/99</b>		Total Depth		Plug Back TD		Elevation	
Casing Size		Weight	d	Set At	Perforations: From To	<b>RIO ARRIBA</b>	
Tubing Size		Weight	d	Set At	Perforations: From To	<b>BLANCO</b>	
Type Well - Single-Bradenhead-GG or GO Multiple				Packer Set At		Formation <b>MV</b>	
Producing Thru <b>Tubing</b>		Reservoir Temp. oF		Mean Annual Temp. oF		Barometer Pressure - Pa	
L	H	Gq <b>0.6</b>	%CO2	%N2	%H2S	Prover <b>3/4"</b>	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"				964		968		0
1					222	60	921		0.5 hr
2					262	65	901		1.0 hr
3					304	68	884		1.5 hrs
4					319	70	862		2.0 hrs
5					341	71	838		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor Fl	Gravity Factor Fq	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	<b>9.604</b>					<b>353</b>	<b>0.9905</b>	<b>1.29</b>	<b>1.033</b>	<b>4475</b>
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ratio					Mcf/bbl. Deq.
1					A.P.I Gravity of Liquid Hydrocabrons _____					
2					Specific Gravity Separator _____					
3					Specific Gravity Flowing Fluid xxxxxxxxxx					XXXXXXX
4					Critical Pressure _____ p.s.i.a.					_____ p.s.i.a.
5					Critical Temperature _____ R					_____ R

Pc	<b>980</b>	Pc <sup>2</sup>	<b>960400</b>	
NO	Pt1	Pw	Pw <sup>2</sup>	Pc <sup>2</sup> -Pw <sup>2</sup>
1		<b>850</b>	<b>722500</b>	<b>237900</b>
2				
3				
4				
<div style="display: flex; justify-content: space-between;"> <div> <b>(1) <math>\frac{Pc^2}{Pc^2 - Pw^2} = 4.0369903</math></b> </div> <div> <b>(2) <math>\frac{Pc^{2n}}{Pc^2 - Pw^2} = 2.8480</math></b> </div> </div>				
<b>AOF = Q <math>\frac{Pc^{2n}}{Pc^2 - Pw^2} = 12744</math></b>				
Absolute Open Flow		<b>12744</b>	Mcf/d @ 15.025	Angle of Slope _____
				Slope, n <b>0.75</b>

Remarks:			
Approved By Commission:	Conducted By: <b>Chik Charley</b>	Calculated By: <b>Tracy Ross</b>	Checked By: <b>David Spitz</b>