

**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      Annual      Special</b>			Test Date <b>10/3/98</b>		Well Number <b>#170</b>				
Completion Date <b>9/5/98</b>		Total Depth		Plug Back TD		Elevation		Unit    Sec    Twp    Rng <b>N      21    31N    6W</b>	
Casing Size		Weight    d		Set At		Perforations: From    To		County <b>RIO ARRIBA</b>	
Tubing Size		Weight    d		Set At		Perforations: From    To		Pool <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		Connection
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	<b>2" X 3/4"</b>				<b>1052</b>		<b>1059</b>		<b>0</b>
1					<b>381</b>	<b>57</b>	<b>956</b>		<b>0.5 hr</b>
2					<b>367</b>	<b>60</b>	<b>891</b>		<b>1.0 hr</b>
3					<b>352</b>	<b>62</b>	<b>848</b>		<b>1.5 hrs</b>
4					<b>344</b>	<b>64</b>	<b>818</b>		<b>2.0 hrs</b>
5					<b>322</b>	<b>66</b>	<b>771</b>		<b>3.0 hrs</b>

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	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	<b>1071</b>	Pc <sup>2</sup>	<b>1147041</b>	
NO	Ptl	Pw	Pw <sup>2</sup>	Pc <sup>2</sup> -Pw <sup>2</sup>
1		<b>783</b>	<b>613089</b>	<b>533952</b>
2				
3				
4				
<div style="display: flex; justify-content: space-between;"> <div> (1) <math>\frac{P_c^2}{P_c^2 - P_w^2} = \underline{\underline{2.14821}}</math> </div> <div> (2) <math>\frac{P_c^{2.75}}{P_c^{2.75} - P_w^{2.75}} = \underline{\underline{1.7744}}</math> </div> </div>				
AOF = Q $\frac{P_c^{2.75}}{P_c^{2.75} - P_w^{2.75}} = \underline{\underline{7564}}$				
Absolute Open Flow		<b>7564</b>	Mcf/d @ 15.025	Angle of Slope _____
				Slope, n <b>0.75</b>

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