

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 11/20/2000		Well Number #355		
Completion Date 11/11/2000		Total Depth 3227'		Plug Back TD 3118'		Elevation 6378'	
Casing Size		Weight	d	Set At	Perforations: From To	County Rio Arriba	
Tubing Size		Weight	d	Set At	Perforations: From To	Pool Basin	
Type Well - Single-Bradenhead-GG or GO Multiple				Packer Set At		Formation Fruitland Coal	
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
SI		2" X 3/4"			0		1180	
1					540	60	1050	0
2					405	64	830	0.5 hr
3					290	68	740	1.0 hr
4					170	69	710	1.5 hrs
5					80	70	690	2.0 hrs
								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,Mcf/d
1	9.604					92	0.9905	1.29	1.010	1140
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z						
1					Gas Liquid Hydrocarbon Ration					Mcf/bbl.
2					A.P.I Gravity of Liquid Hydrocabrons _____					Deq.
3					Specific Gravity Separator _____					
4					Specific Gravity Flowing Fluid xxxxxxxxxx					XXXXXX
5					Critical Pressure _____ p.s.i.a.					____ p.s.i.a.
					Critical Temperature _____ R					____ R

Pc	1192	Pc ²	1420864	
NO	Pt1	Pw	Pw ²	Pc ² -Pw ²
1		702	492804	928060
2				
3				
4				
<div style="display: flex; justify-content: space-between;"> <div> <p>(1) $\frac{Pc^2}{Pc^2 - Pw^2} = \underline{1.5310045}$</p> <p>AOF = Q $\frac{Pc^2 \Delta n}{Pc^2 - Pw^2} = \underline{1569}$</p> </div> <div> <p>(2) $\frac{Pc^2 \Delta n}{Pc^2 - Pw^2} = \underline{1.3764}$</p> </div> </div>				
Absolute Open Flow		1569	Mcf/d @ 15.025	Angle of Slope _____
Slope, n		0.75		
Remarks:				
Approved By Commission:		Conducted By: Mark Lepich		Calculated By: Tracy Ross
				Checked By: Stergie Katirgis