

**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 6/27/2000		Well Number #159A						
Completion Date		Total Depth		Plug Back TD		Elevation		Unit M	Sec 19	Twp 31N	Rng 5W
Casing Size		Weight	d	Set At	Perforations:	County N Rio Arriba					
Tubing Size		Weight	d	Set At	Perforations:	Pool Blanco MV					
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"			205	86	1060		0
1					340	68	995		0.5 hr
2					325	69	955		1.0 hr
3					317	69	935		1.5 hrs
4					308	71	905		2.0 hrs
5					295	72	875		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	9.604					307	0.9887	1.29	1.041	3915
2										
3										
4										

NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration	Mcf/bbl. Deq.
1					A.P.I Gravity of Liquid Hydrocarbons _____	XXXXXX
2					Specific Gravity Separator _____	
3					Specific Gravity Flowing Fluid xxxxxxxxxx	
4					Critical Pressure _____ p.s.i.a.	_____ p.s.i.a.
5					Critical Temperature _____ R	_____ R

Pc	1072	Pc2	1149184	
NO	Pt1	Pw	Pw2	Pc2-Pw2
1		887	786769	362415
2				
3				
4				

(1) $Pc2 = \frac{3.1709063}{Pc2 - Pw2}$		(2) $Pc2^n = \frac{2.376225}{Pc2 - Pw2}$	
$AOF = Q \frac{Pc2^n}{Pc2 - Pw2} = \underline{\underline{9302}}$			

Absolute Open Flow	9302	Mcf/d @ 15.025	Angle of Slope	Slope, n	0.75
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Remarks:			
Approved By Commission:	Conducted By: Mark Lepich	Calculated By: Tracy Ross	Checked By: David Spitz