

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

Form C-122  
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test Date 6/25/79						
Company Amoco Production Company				Connection Gas Company of New Mexico							
Pool Buffalo Penn				Formation Morrow				Unit			
Completion Date 4/13/78		Total Depth 13670.		Plug Back TD 13660.		Elevation 3700.		Farm or Lease Name Nellis Federal			
Csq. Size 5.500	Wt. 23.0	d 4.670	Set At 13669.	Perforations: From 13392. To 13403.			Well No. 2				
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 13206.	Perforations: From 13649. To 13652.			Unit Sec. Twp. Rye. 6 19S 33E				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 13206.		County Lea				
Producing Thru tubing		Reservoir Temp. °F 174.0 13522.		Mean Annual Temp. °F 60.0		Baro. Press. - P <sub>a</sub> 13.2		State New Mexico			
L 13522.	H 13522.	G <sub>g</sub> 0.651	% CO <sub>2</sub> 0.64	% N <sub>2</sub> 0.40	% H <sub>2</sub> S 0.	Prover 0.	Meter Run 4.0	Taps Flange			
<b>FLOW DATA</b>					<b>TUBING DATA</b>			<b>CASING DATA</b>		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1350.	74.			48.0
1.	4.03 x 1.500			670.	1.2	95.	1292.	76.	0.	0.	1.0
2.	4.03 x 1.500			665.	1.9	91.	1230.	75.	0.	0.	1.0
3.	4.03 x 1.500			620.	2.8	87.	1158.	77.	0.	0.	1.0
4.	4.03 x 1.500			625.	3.7	85.	1080.	78.	0.	0.	1.0
5.											
<b>RATE OF FLOW CALCULATIONS</b>											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd				
1	10.84	28.63	683.2	0.9680	1.2394	1.0552	393.				
2	10.84	35.90	678.2	0.9715	1.2394	1.0564	495.				
3	10.84	42.11	633.2	0.9750	1.2394	1.0542	582.				
4	10.84	48.59	638.2	0.9768	1.2394	1.0554	673.				
5											
NO.	P <sub>t</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ 0. _____ Mcf/bbl.						
					A.P.I. Gravity of Liquid Hydrocarbons _____ 0. _____ Deg.						
1.	1.02	555.	1.49	0.898	Specific Gravity Separator Gas _____ 0.651		XXXXXXXXXX				
2.	1.01	551.	1.48	0.896	Specific Gravity Flowing Fluid _____ XXXXX		0.651				
3.	0.94	547.	1.47	0.900	Critical Pressure _____ 672. _____ P.S.I.A.		672. _____ P.S.I.A.				
4.	0.95	545.	1.46	0.898	Critical Temperature _____ 372. _____ R		372. _____ R				
5.											
	P <sub>c</sub> 1350.0	P <sub>w</sub> 1822.									
NO.	P <sub>c</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.8611$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6960$						
1	1704.	1293.	1672.	151.	AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1142.$						
2	1546.	1234.	1522.	300.							
3	1372.	1164.	1355.	468.							
4	1195.	1089.	1185.	637.							
5											
Absolute Open Flow _____ 1142. _____ Mcfd @ 15.025					Angle of Slope @ _____ 63.3		Slope, n _____ 0.503				
Remarks: _____											
Approved By Commission:			Conducted By: John West Engr.			Calculated By: C.C. Weaver			Checked By: W.D. Magness		