

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND 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 2-9-78						
Company AMOCO PRODUCTION COMPANY				Connection NORTHERN NATURAL GAS CO							
Pool EUMON QUEEN				Formation QUEEN				Unit M			
Completion Date 9 28 77		Total Depth 3999.		Plug Back TD 3734.		Elevation 3510.		Farm or Lease Name GILLULLY B FED			
Csq. Size 5.500	Wt. 14.0	d 5.012	Set At 3970.	Perforations: From 3527. To 3562.			Well No. 16				
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 3514.	Perforations: From 0. To 0.			Unit Sec. Twp. Rje. 22,20S,37E				
Type Well - Single - Broadhead - G.G. or G.O. Multiple SINGLE					Packer Set At C.			County LEA			
Producing Thru TUBING		Reservoir Temp. °F 91.6 3545.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State NEW MEXICO			
L 3545.	H 3545.	G _g 0.706	% CO ₂ 4.37	% N ₂ 1.42	% H ₂ S 0.76	Prevor 0.	Meter Run 4.0	Taps FLANGE			
FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							290.	50.			73.0
1.	4.00	X	1.750	113.	0.9	39.	285.	54.	0.	0.	1.0
2.	4.00	X	1.750	117.	2.0	42.	281.	56.	0.	0.	1.0
3.	4.00	X	1.750	121.	4.0	45.	274.	58.	0.	0.	1.0
4.	4.00	X	1.750	125.	8.1	50.	260.	62.	0.	0.	1.0
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	14.94	10.66	126.2	1.0208	1.1901	1.0151	196.				
2	14.94	16.14	130.2	1.0178	1.1901	1.0154	296.				
3	14.94	23.17	134.2	1.0147	1.1901	1.0156	424.				
4	14.94	33.46	138.2	1.0098	1.1901	1.0156	610.				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1	0.18	499.	1.31	0.970	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	0.19	502.	1.32	0.970	Specific Gravity Separator Gas _____		0.706				
3	0.19	505.	1.32	0.970	Specific Gravity Flowing Fluid _____		0.706				
4	0.20	510.	1.34	0.969	Critical Pressure _____ P.S.I.A.		689. P.S.I.A.				
5					Critical Temperature _____ R		381. R				
P _c 303.4 P _c ² 92.											
NO.	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 7.3461$		(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 3.8829$					
1	89.	299.	89.								
2	87.	296.	88.								
3	82.	291.	85.								
4	75.	282.	80.								
5											
AOF = Q $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 2358.$											
Absolute Open Flow _____ 2368. _____ Mcfd @ 15.025					Angle of Slope @ _____ 55.8			Slope, n _____ 0.680			
Remarks:											
Approved by Commission: John Run Geolor			Conducted By: Northern Natural Gas			Calculated By: CJT (Amoco)			Checked By: RMB (Amoco)		