

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

1-7-62
1-C-122-12
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-13-77		MAR - 1 1978	
Company AMOCO PRODUCTION COMPANY				Connection EL PASO NATURAL GAS			
Pool EMPIRE SOUTH MORROW				Formation MORROW		Unit O.C.C. ARTERIA, OFFICE	
Completion Date 11-18-77		Total Depth 11085.		Plug Back TD 11045.		Elevation 3605.	
Farm or Lease Name EMPIRE SOUTH DEEP				Well No. 16			
Csg. Size 5.500	Wt. 15.5	d 4.950	Set At 11085.	Perforations: From 10918. To 10936.		Unit Sec. Twp. Rge. G 7 18S 29E	
Tbg. Size 2.375	Wt. 0.	d 1.995	Set At 19738.	Perforations: From 0. To 0.		County EDDY	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 10726.		State NEW MEXICO	
Producing Thru TUBING		Reservoir Temp. °F 174. # 10927.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 10927.	H 10927.	G _g 0.623	% CO ₂ 0.	% N ₂ 0.	% H ₂ S 0.	Prover 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
SI							2970.	40.			72.0
1.	4.00 X 2.000			642.	5.8	26.	2760.	58.	0.	0.	1.0
2.	4.00 X 2.000			630.	10.2	60.	2699.	62.	0.	0.	1.0
3.	4.00 X 2.000			640.	16.8	60.	2634.	63.	0.	0.	1.0
4.	4.00 X 2.000			658.	32.5	56.	2452.	64.	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	19.83	61.65	655.2	1.0344	1.2669	1.0836	1736.
2	19.83	81.00	643.2	1.0000	1.2669	1.0624	2162.
3	19.83	104.76	653.2	1.0000	1.2669	1.0634	2799.
4	19.83	147.70	671.2	1.0039	1.2669	1.0671	3976.
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.98	486.	1.33	0.852	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	0.96	520.	1.42	0.886	Specific Gravity Separator Gas _____
3.	0.97	520.	1.42	0.884	Specific Gravity Flowing Fluid _____
4.	1.00	516.	1.41	0.878	Critical Pressure _____ P.S.I.A.
5.					Critical Temperature _____ R

P _c 3019.5 P _c ² 9117.				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.5003$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.5003$	
NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 13917.$		
1	7691.	2795.	7811.	1307.			
2	7356.	2737.	7489.	1628.			
3	7008.	2688.	7223.	1894.			
4	6077.	2552.	6513.	2605.			
5							

Absolute Open Flow _____ 13917. _____ Mcfd @ 15.025	Angle of Slope θ _____ 45.0	Slope, n _____ 1.000
---	------------------------------------	----------------------

Approved by Commission:	Conducted By: John West Engineering	Calculated By: CCW (Amoco)	Checked By: RMB (Amoco)
-------------------------	--	-------------------------------	----------------------------