

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

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9/19/79		OCT 12 1979	
Company AMOCO PRODUCTION COMPANY				Connection EL PASO NATURAL GAS COMP			
Pool UNDESIGNATED <i>Atoka</i>				Formation ATOKA		Unit O.C.C. ARTESIA, OFFICE	
Completion Date 6/21/79		Total Depth 13324.		Plug Back TD 13284.		Elevation 2954.	
Csg. Size 5.000		Wt. 17.9		Set At 13324.		Perforations: From 11862. To 11866.	
Thq. Size 2.375		Wt. 4.7		Set At 11662.		Perforations: From 11874. To 11880.	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 11001.		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 204.8 11871.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 11871.		H 11871.		G _q 0.578		% CO ₂ 0.40	
				% N ₂ 0.48		% H ₂ S 0.02	
				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							4309.	68.			45.0
1.	4.03 x 0.625			780.	36.0	8P.	3505.	74.	0.	0.	1.0
2.	4.03 x 0.625			785.	29.2	75.	2980.	78.	0.	0.	1.0
3.	4.03 x 0.625			790.	47.6	76.	2450.	78.	0.	0.	1.0
4.	4.03 x 0.625			790.	64.0	78.	1831.	78.	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	1.85	168.98	793.2	0.9813	1.3153	1.0553	425.
2	1.85	152.56	798.2	0.9859	1.3153	1.0578	386.
3	1.85	195.55	803.2	0.9850	1.3153	1.0577	494.
4	1.85	226.73	803.2	0.9831	1.3153	1.0569	572.
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.18	540.	1.54	0.898	0.	0.	0.578	X X X X X X X X	675.	350.
2.	1.18	535.	1.53	0.894				X X X X X		
3.	1.19	536.	1.53	0.894						
4.	1.19	538.	1.54	0.895						
5.										

$P_r = 4314.8$ $P_c^2 = 18617.$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.2200$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1051$	
NO.	P _r ²	P _w ²	P _w ²	P _c ² - P _w ²			
1	2378.	3503.	12274.	6344.			
2	8959.	2974.	8847.	9771.			
3	6067.	2447.	5986.	12631.			
4	3401.	1832.	3358.	15260.			
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$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 632.$				Absolute Open Flow <u>632.</u> Mcfd @ 15.025		Angle of Slope θ <u>63.3</u>		Slope, n <u>0.503</u>	
Remarks:									

Approved By Commission:	Conducted By: John West Engrg.	Calculated By: C.C. Weaver	Checked By: W.D. Magness
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3 - NMOC D - A 1 - Hou 1 - Susp 1 - WDM 1 - DLB