

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

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-1-77		AUG 4 1977	
Company MORRIS R. ANTEWELL				Connection None		ARTESIA, OFFICE	
Pool Wildcat Strawn Valley				Formation Strawn		Unit J	
Completion Date 8-1-77		Total Depth 11327		Plug Back TD 10160 11269		Elevation GL 3238	
Csg. Size 5 1/2		Wt. 17#		Set At 11,327		Perforations: From 9822 To 9829	
Tbg. Size 2 3/8		Wt. 4.7		Set At 9773		Perforations: From open To end	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single				Packer Set At 9773		Farm or Lease Name Mesa Fuerte Com	
Producing Thru Tbg.		Reservoir Temp. °F 172 @ 9773		Mean Annual Temp. °F 13.2		Baro. Press. - P _a New Mexico	
L		H		G _g .691		% CO ₂ % N ₂ % H ₂ S	
						Prover Meter Run Taps	
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Duration of Flow
SI	6" positive ck.						
1.	1/8			3387		76	72 hrs.
2.	3/16			3180		74	1 hr.
3.	1/4			2180		74	1 hr.
4.	5/16			1832		74	1 hr.
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.	.2618		3400.2	.9850	1.203	1.149	1212
2.	.6101		3193.2	.9858	1.203	1.163	2690
3.	1.112		2193.2	.9868	1.203	1.206	3492
4.	1.771		1845.2	.9868	1.203	1.196	4640
5.							
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/tbl.		
1.	5.03	536	1.38	.758	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2.	4.77	534	1.38	.739	Specific Gravity Separator Gas .691 XXXXXXXXXX		
3.	3.28	534	1.38	.683	Specific Gravity Flowing Fluid XXXXX		
4.	2.76	534	1.38	.699	Critical Pressure 669 P.S.I.A. P.S.I.A.		
5.					Critical Temperature 388 R R		
F _c 3475.2 P _c ² 12077.0					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 26.266$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 5.125$		
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 6.212$		
1		3408.4	11617.2	459.8			
2		3229.3	10428.4	1648.6			
3		2270.9	5157.0	6920.0			
4		2000.7	4002.8	8074.2			
5							
Absolute Open Flow 6.212				Mcf/d @ 15.025		Angle of Slope 63.5	
						Slope, n .500	
Remarks: Point alignment too steep, a slope of 63.5 was drawn through low rate of flow. Well made measurable amount of fluid.							
Approved by Commission		Conducted By: Reggie Benton		Calculated By: Reggie Benton		Checked By:	