

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-17-78	
Company MORGAN OIL CO.				Connection Ticeville Apache	
Well 251				Formation M	
Completion Date 10-17-78		Total Depth 4100'		Plug Back TD 4052'	
Casing Size 4 1/2"		Casing Weight 17.0		Elevation 6686' KB 6624' GL	
Perforations From 3056 To 3107		Perforations From 3108 To 3157		Well No. 251	
Type Well - Single - Intermediate - G.G. or G.O. Multiple Single				Packer Set At 3230	
Producing Interval 3056 - 3157		Reservoir Temp. °F 173.0		Mean Annual Temp. °F 65.0	
Proven 173.0		% CO ₂ 0.650		Proven 173.0	

FLOW DATA							TUBING DATA		Casing Data		Duration of Flow
NO.	Proven Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _g	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	2 1/2"						335				
2.	2 1/2"						335				
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (34 Hour)	$\sqrt{h_g P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compression Factor F _{sc}	Rate of Flow Q, Mcfd
1.	4.452		85	1.000	1.000	1.000	647
2.							
3.							
4.							
5.							

NO.	P _c	Temp. °F	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure P.S.I.A.	Critical Temperature °F
1.	980									
2.										
3.										
4.										
5.										

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²
1.	980	85	7225	960400
2.				
3.				
4.				
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.00281$

ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 647$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.00286$

Absolute Open Flow	647	Mcfd @ 15.025	Angle of Slope	0.85
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NEW MEXICO OIL CONSERVATION COMMISSION
 OCT 20 1978
 P.O. BOX 10000
 ALBUQUERQUE, N.M. 87110

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
		NEIL TETTER	M. K. L.