

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 10-23/24-72	
Company Cockrell Corporation			Connection None		
Well Wildcat			Formation		
Completion Date 10-18-72		Total Depth		Plug Back TD 11,310	
Casing Size 5 1/2		WT. 17 & 20		Elevation	
Set At 11,512		Perforations: From 10,668 To 10,680		Farm or Lease Name Federal Occidental	
Trg. Size 2 7/8 EUE		WT. 6.5		Set At 10,377	
Perforations: From		To		Well No. 1	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 10,370		Unit Sec. Twp. Rge. 22 14S 30E	
Producing Thru Tubing		Reservoir Temp. °F 148.00 10,674		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		County Chaves		State New Mexico	
L 10,674		H 10,674		G _g .698	
% CO ₂ .29		% N ₂ 1.0		% H ₂ S 0	
Prover		Meter Run X		Taps	

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	
1.	4"	1 1/2	200	84	46	630	48				72 Hrs
2.	4"	1 1/2	200	68	64	660	51				1 Hr
3.	4"	1 1/2	200	48	65	712	55				1 Hr
4.	4"	1 1/2	200	28	65	782	57				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	10.84	133.82	213.2	1.014	.9913	1.025	1495
2	10.84	120.40	213.2	.9962	.9913	1.025	1321
3	10.84	101.16	213.2	.9952	.9913	1.025	1109
4	10.84	77.26	213.2	.9952	.9913	1.025	847
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	198 Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	65.4 Deg.
2					Specific Gravity Separator Gas	.693
3					Specific Gravity Flowing Fluid	.638
4					Critical Pressure	669 P.S.I.A.
5					Critical Temperature	389 °R

$P_r = 925.9$ $P_c^2 = 857$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{857}{296}$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1023$	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²			
1	749.3	561	296				
2	771.3	594	253				
3	810.0	656	201				
4	870.0	757	100				
5							

Absolute Open Flow		3143 Mcfd @ 15.025	Angle of Slope	55°	Slope, n	.699
Remarks:						
Approved by Commission:		Conducted By: West Texas Engineering Service, Inc.		Calculated By: H. L. Hagler		Checked By: