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MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12-14-81		660 DEC 23 1981			
Company MC CLELLAN OIL CORP.		Connection AIR NEW WELL		O. C. D. 1980 FEA ARTESIA, OFFICE			
Pool UNDESIGNATED <i>abo</i>		Formation ABO		Unit B			
Completion Date 12-7-81		Total Depth 3884		Plug Back TD 3840			
Elevation 3657 KB		Farm or Lease Name COYOTE DRAW FEDERAL		Well No. 4			
Coq. Size 4.500		WI. 10.5		d 4.052			
Set At 3840		Perforations: From 3514 To 3691		Unit B			
Thq. Size 2.375		WI. 4.70		d 1.995			
Set At 3660		Perforations: From OPEN To ENDED		Unit B			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At NONE		County CHAVES			
Producing Thru TUBING		Reservoir Temp. °F 100 ° 3884		Mean Annual Temp. °F 60°			
Baro. Press. - P _g 13.2		State NEW MEXICO		Mater Run 4"			
L 3602		H 3602		Cq 0.696			
% CO ₂ 3.37		% N ₂ 10.90		% H ₂ S Prover			
Taps FLANGE		Mater Run 4"		Taps FLANGE			
FLOW DATA							
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w		
SI					Temp. °F		
1.	4.000	X	.500	375	8.0		
2.	4.000	X	.500	375	14.5		
3.	4.000	X	.500	380	31.0		
4.	4.000	X	.500	380	56.0		
5.							
TUBING DATA							
					Press. p.s.i.g.		
					Temp. °F		
					B.H.P. PSIG		
					Temp. °F		
					Duration of Flow		
					270 HR.		
					1		
					1		
					1		
					1		
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	1.2120	55.73	388.2	1.0058	1.1987	1.0342	84
2	1.2120	75.03	388.2	9962	1.1987	1.0314	112
3	1.2120	110.40	393.2	9905	1.1987	1.0303	164
4	1.2120	148.39	393.2	9896	1.1987	1.0303	220
5							
NO.	R ₁	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
1	.58	514	1.46	.935	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	.58	524	1.49	.940	Specific Gravity Separator Gas .6960 X X X X X X X		
3	.59	530	1.51	.942	Specific Gravity Flowing Fluid X X X X X .6960		
4	.59	531	1.51	.942	Critical Pressure 665 P.S.I.A. _____ P.S.I.A.		
5					Critical Temperature 352 R _____ R		
$P_c = 1002.2$ $P_c^2 = 1004.4$							
NO.	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.6,130$			
1	947.2	949.1	55	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.5,680$			
2	945.2	893.4	111				
3	903.2	815.8	189				
4	852.2	726.2	278				
5							
Absolute Open Flow 565.0 Mcfd @ 15.025 Angle of Slope @ 53.7 Slope, n .7342							
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE GUAGES							
Approved By Division		Conducted By: RICHARD TOWNLEY		Calculated By: BENNETT & CATHEY		Checked By:	