

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

SF
 Filed
 122
 Yates
 Form C-122
 Revised 9-

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-26-80		APR 28 1980				
Company Yates Petroleum Corp. ✓				Connection Transwestern Pipeline Company						
Pool Wildcat Abo				Formation Abo		Unit O. C. D.				
Completion Date 9-6-77				Total Depth 6371'		Plug Back TD 5416'		Elevation 3843' KB		
Firm or Lease Name McConkey "B"				Well No. 1		Unit Soc. Twp. Rge. D 10 9S 26E				
Csg. Size 4-1/2" Wt. 10.5#				Set At 4.052		Perforations: From 4764 To 4782		County Chaves		
Tub. Size 2-3/8" Wt. 4.7#				Set At 1.995		Perforations: From To		State New Mexico		
Type Well - Single - Fractured - G.G. or G.O. Multiple Single				Packer Set At 4735 KB		Boro. Press. - P _g 13.2		Meter Run 2" Taps Flange		
Producing Thru Tubing L 4769 H 4769				Reservoir Temp. °F 102 @ 4773		Mean Annual Temp. °F 62		Prover		
G _g 0.632				% CO ₂ 1.46		% N ₂ 4.15		% H ₂ S Nil		
FLOW DATA				TUBING DATA		CASING DATA		Duration of Flow		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							1002	64		
1.	2.067 x 0.750			630	16	70	992	67		
2.				631	31	70	983	68		
3.				633	61	70	968	69		
4.				635	94	70	952	70		
5.										
RATE OF FLOW CALCULATIONS										
NO.	Coefficient (24 Hour)	$\sqrt{h_{LQ} P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd			
1	2.709	101.45	643.2	.9905	1.234	1.0567	132			
2	2.709	141.32	644.2	.9905	1.234	1.0568	184			
3	2.709	198.54	646.2	.9905	1.234	1.0570	259			
4	2.709	246.84	648.2	.9905	1.234	1.0572	322			
5										
							2550 Mcf/bbl.			
NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 51.3		A.P.I. Gravity of Liquid Hydrocarbons 0.657			
1	.962	530	1.458	.8956	Specific Gravity Separator Gas		XXXXXXX			
2	.964	530	1.458	.8954	Specific Gravity Flowing Fluid		XXXXX			
3	.967	530	1.458	.8951	Critical Pressure 668.5 P.S.I.A.		669 P.S.I.A.			
4	.970	530	1.458	.8948	Critical Temperature 363.5 °R		355.5 °R			
5										
P _f 1146.2 P _c 1314					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 10.186$					
					(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.1951$					
NO.	P _f	P _w	P _w	P _c	ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1351$					
1			1286	28						
2			1263	51						
3			1225	89						
4			1185	129						
5										
Absolute Open Flow 1351 Mcfd @ 15.025					Angle of Slope 54.77 deg.		Slope, n 0.6178			
Remarks: Static pressures by Bennett Wireline; flowing pressures by DWT.										
NOTE: Well put on production 2-26-80 on 0.750" orifice and was unable to get larger pressure drawdowns. Calculations worksheet C-122D attached.										
Approved by Comptroller:			Conducted By: Don Weaver			Calculated By: Eddie Mahfood			Checked By:	