

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special										Test Date 10-02-80		
Company Caulkins Oil Company					Connection							
Pool Basin Dakota					Formation Basin Dakota					Unit		
Completion Date 9-25-80			Total Depth 7389		Plug Back TD 7389		Elevation 6465		Farm or Lease Name Breech A			
Csg. Size 7" & 4 1/2"		Wt. 23#		d 6.366		Set At 6591		Perforations: From 7114 To 7342		Well No. 204E		
Thq. Size 2 3/8"		Wt. 4.7		d 1.991		Set At 7216		Perforations: From 7216 To		Unit Sec. Twp. Rge. L 9 26N 6W		
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Gas-Gas Multiple										Packer Set At 5322		
Producing Thru Tubing			Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a		County Rio Arriba			
L			H		Gg		% CO ₂		% N ₂		% H ₂ S	
							Prover		Meter Run		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.							1971		PKR		7 Days
2.							223		PKR		3 Hours
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	14.1605		235	1.000	1.000	1.000	3.327
2.							
3.							
4.							
5.							

NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.										
2.										
3.										
4.										
5.										

P _c 1983 P _c ² 3,932,289	
NO.	P _i ² P _w ² P _w ² - P _i ²
1.	55,225 585 341,916 3,590,371
2.	
3.	
4.	
5.	

(1) $\frac{P_c^2}{P_i^2 - P_w^2} = 1.095$

AOF = Q $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 3.562$

(2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 1.0706$

Absolute Open Flow	3,562	Mcfd @ 15.025	Angle of Slope @	75	Slope, n
Remarks:					

Approved by Division

Conducted by