

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-29-81	
Company ARCO Oil & Gas Co., Div. Atlantic Richfield Company				Connection None			
Pool Basin Dakota				Formation Dakota		Unit	
Completion Date 4-19-81		Total Depth 6321		Plug Back TD 6279		Elevation 5772'	
Csg. Size 4 1/2"		Wt. 10.5#		d 4.052		Set At 6320	
Perforations From 6113		To 6242		Well No. 4E			
Trg. Size 2 3/8"		Wt. 4.7#		d 1.995		Set At 6082	
Perforations From		To		Unit J		Sec. 34	
Twp. 28N		Rge. 11W		County San Juan		State New Mexico	
Type Well - Single - Broderhead - G.G. or C.O. Multiple Single Gas				Packer Set At None		Meter Run	
Producing Thru Tubing		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _a 12.0	
L 4866		H 4866		G _g .800 Est.		% CO ₂	
				% N ₂		% H ₂ S	
						Prover 2"	

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	
SI							878		871		10 Days
1.	2"		.750"	68		78	141		379		3 Hours
2.											
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	9.453		80	.9831	1.118	1.012	841
2.							
3.							
4.							
5.							

NO.	P _r	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	0.12	538	1.27	0.976	.800 Est.				665	424
2.										
3.										
4.										
5.										

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²
1	23409	197	38852	753248
2.				
3.				
4.				
5.				

(1) $\frac{P_r^2}{P_w^2 - P_w^2} = 1.0516$

(2) $\left[\frac{P_r^2}{P_w^2 - P_w^2} \right]^n = 1.0385$

AOF = Q $\left[\frac{P_r^2}{P_w^2 - P_w^2} \right]^n = 873$

MAILED

Absolute Open Flow 873	Mcf @ 15.025	Angle of Slope	Slope, n = .75
Remarks Well Tested Thru 48/64" Choke			
Approved by Division	Conducted by	Calculated by	Checked by
	C. R. Thompson, Jr.	C. R. Thompson, Jr.	