

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-8-70			
Company Morris R. Antweil			Connection Pending				
Pool Wildcat			Formation Morrow			Unit	
Completion Date 5-8-70		Total Depth 11668		Plug Back TD 11,589		Elevation 3198 Gr.	
Farm or Lease Name Missouri- New Mexico and Co.		Well No. 1		Perforations: From 11,556 To 11,575			
Csg. Size 4.5"		Wt. 11.6#		Set At 11,666			
Thg. Size 2"		Wt. 4.70#		Set At 11,502			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At none		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 180 @ 11,566		Mean Annual Temp. °F		Baro. Press. - P _a 13.2	
State New Mexico							
L 11502		H 1150		G _g .582		% CO ₂	
						% N ₂	
						% H ₂ S	
						Prover	
						Meter Run 3.068"	
						Taps flange	

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	3"		.750"				2948	70	2960	70	48 hrs.
1.	3"		.750"	783	4	76	2867	70	2880	70	1
2.	3"		.750"	805	72	76	2420	72	2545	72	1
3.	3"		1.000"	800	41	69	2125	72	2220	72	1
4.	3"		1.000"	808	68	73	1601	72	1839	72	1
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	2.672	56.43	796.2	.9850	1.311	1.062	207
2	2.672	242.71	818.2	.9850	1.311	1.065	892
3	4.789	182.60	813.2	.9915	1.311	1.064	1209
4	4.789	236.31	821.2	.9877	1.311	1.065	1561
5							

NO.	P _t	Temp. °R	T _f	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	1.18	536	1.53	.886	Dry	Dry	.582	XXXXXX	672	350
2	1.22	536	1.53	.882						
3	1.21	529	1.51	.883						
4	1.22	533	1.52	.882						
5										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	2893.2	8371	469	
2	2558.2	6544	2296	
3	2233.2	4987	3853	
4	1852.2	3431	5409	
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.294$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2439$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.017$

Absolute Open Flow <u>2439</u> Mcfd @ 15.025		Angle of Slope θ _____		Slope, n <u>.845</u>	
Remarks: _____					

Approved By Commission:	Conducted By: Bill Kerley	Calculated By: Bill Kerley	Checked By: Bill Kerley
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