

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

1-51
1-File
1-C-122
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8/3/78		AUG 11 1978	
Company Beard Oil Company ✓				Connection Air		O. C. C. ARTESIA, OFFICE	
Pool W.C. Had. Atoka				Formation Atoka		Unit G	
Completion Date 8/12/78		Total Depth 7140		Plug Back TD 7134		Elevation 3847	
Csg. Size 4 1/2		Wt. 10.5/11/6		Set At 7140		Perforations: From 7032 To 7062	
Tbg. Size 2 3/8		Wt. 4.7		Set At J-55 6969		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 6969		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 144 @ 6969		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 6969		H 6969		Gg .619		% CO ₂ .0058	
						% N ₂ .0103	
						% H ₂ S	
						Prover	
						Meter Run 3"	
						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							1830				72 hrs
1.	3	X	1.625	510	6.0	60	1735				1 hr
2.	3	X	1.625	500	11.0	60	1675				1 hr
3.	3	X	1.625	500	22.0	50	1500				1 hr
4.	3	X	1.625	525	26.0	48	1425				1 hr
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, Fpv	Rate of Flow Q, Mcfd
1	13.24	56.03	523.2	1.000	1.271	1.051	991
2	13.24	75.13	513.2	1.000	1.271	1.049	1326
3	13.24	106.26	513.2	1.010	1.271	1.052	1900
4	13.24	118.29	538.2	1.012	1.271	1.056	2127
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	.78	520	1.42	.905	132.167	63.2 @ 60°	.619	XXXXXX	671	365
2	.76	520	1.42	.908				XXXXX	670	372
3	.76	510	1.40	.904						
4	.76	508	1.39	.896						
5										

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1		1754.0	3076.4	321.0	2.755	1.755
2		1698.9	2886.3	511.1		
3		1538.1	2365.7	1031.7		
4		1471.2	2164.4	1233.0		
5						

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.733$

Packed 9-1-78 ST

Absolute Open Flow	3,733	Mcf/d @ 15.025	Angle of Slope θ	61°	Slope, n	.555
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Remarks: Made 2 Bbls Distillate during the test

Approved By Commission:	Conducted By: Larry Davis	Calculated By: Larry Davis	Checked By:
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