

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 6-29-76		JUL 20 1976	
Company: CITIES SERVICE OIL COMPANY				Connection: TO AIR		O. C. C.	
Pool: North Burton Flats <i>Wolfcamp</i>				Formation: Wolfcamp		Unit: ARTESIA, OFFICE	
Completion Date: 6-29-76		Total Depth: 11,400'		Plug Back TD: 11,176'		Elevation: 3274.8 gr.	
Csg. Size: 5 1/2"		Wt.: 17#		Set At: 11,251'		Perforations: 9096' To 9144'	
Tbg. Size: 2 7/8"		Wt.: 6.4#		Set At: 8979'		Perforations: open To ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At: 8979'		County: Eddy	
Producing Thru: Tubing		Reservoir Temp. °F: 168 @ 9120'		Mean Annual Temp. °F: 60°		Baro. Press. - P _a : 13.2	
L: 9120'		H: 9120'		G _g : 0.7286		% CO ₂ : 0.336	
				% N ₂ : 2.246		% H ₂ S: 0-0-	
				Prover: -----		Meter Run: 4"	
						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							3130.0		packer	choke	
1.	4" X 1.50"			330.0	6.0	84	2885.0	84		10/64"	60 Min.
2.	4" X 1.50"			350.0	10.0	92	2792.0	84		12/64"	60 Min.
3.	4" X 1.50"			450.0	26.0	74	2675.0	84		14/64"	60 Min.
4.	4" X 1.50"			420.0	52.0	72	2594.0	84		16/64"	60 Min.
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	10.84	45.38	343.2	0.9777	1.171	1.037	584
2	10.84	60.27	363.2	0.9706	1.171	1.035	769
3	10.84	109.74	463.2	0.9869	1.171	1.055	1450
4	10.84	150.09	433.2	0.9887	1.171	1.090	2053
5							

NO.	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.52	544	1.38	0.930	53.2
2.	0.55	552	1.40	0.934	
3.	0.70	534	1.35	0.898	
4.	1.10	532	1.35	0.842	
5.					

P _f 4641.2	P _s 2154	
NO.	P _f ²	P _s ²
1	8400	4580.2
2	7369	4529.2
3	7226	4417.2
4	6797	4308.2
5		

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 7.229$

AOF = Q $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 12593$

(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 6.134$

Absolute Open Flow: 12593	Mcf @ 15.025	Angle of Slope: 47.5°	Slope, n: 0.917
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Remarks: Bottom hole pressures measured with Amerada gauge @ 9120 feet

Approved By Commission:	Conducted By: G. Parker	Calculated By: R. West	Checked By: J.W.W.
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