

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 8-20-81		RECEIVED	
Company Cities Service Co.								SEP 14 1981	
Pool MORROW								Unit O. C. D.	
Completion Date 8-15-81		Total Depth 12,545		1 In. Back TD 12,5005		Elevation 3039 Gr.		FAR ARTESIA OFFICE Brantley "A"	
Csg. Size 7" 5" Liner	Wt. 23# 18#	d 6.366	Set At 10940 10614-12545	Perforations: From 12,049 To 12,077		Well No. 1			
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11,939	Perforations: From 11,939 To		Unit Sec. Twp. Rge. J 7 23S 28E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 11,939		County EDDY	
Producing Thru Tubing		Reservoir Temp. °F 197° @ 12,063		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 12,063	H 12,063	Gg .5891	% CO ₂ 1.436	% N ₂ .750	% H ₂ S	Prover	Meter Run 4"	Taps Flg.	

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							3870		PKR.	Choke	72 Hrs.
1.	4	x	1"	395	16	72	3310			4/64	1 Hr.
2.	4	x	1"	410	31	59	3010			5/64	1 Hr.
3.	4	x	1"	420	46	68	2637			5.5/64	1 Hr.
4.	4	x	1"	425	60	68	2319			6/64	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	4.753	80.82	408.2	.9887	1.303	1.030	510
2	4.753	115.54	423.2	1.001	1.303	1.035	741
3	4.753	141.16	433.2	.9924	1.303	1.033	896
4	4.753	162.15	438.2	.9924	1.303	1.034	1030
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.	
1	.603	532	1.52	.942	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
2	.625	519	1.48	.933	Specific Gravity Separator Gas _____ X X X X X X X X	
3	.640	528	1.51	.937	Specific Gravity Flowing Fluid _____ X X X X X	
4	.647	528	1.51	.936	Critical Pressure _____ 677 _____ P.S.I.A. _____ P.S.I.A.	
5					Critical Temperature _____ 350 _____ R _____ R	

P _c 3883.2 P _c ² 15,079					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.56486$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.44436$	
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		3321	11029	4050				
2		3021	9126	5953				
3		2635	6943	8136				
4		2333	5443	9639				
5								

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1487$$

Absolute Open Flow 1487		Mcf @ 15.025	Angle of Slope 50° 39'	Slope, n 81994
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Remarks: No Fluid produced during test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
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