

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

Form C-122
Revised 9-1-63

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3-7-78		MAR 17 1978	
Company CITIES SERVICE COMPANY					TO AIR		O. C. C.	
Pool MORROW					MORROW		Unit ARTESIA, OFFICE	
Completion Date 3-7-78		Total Depth 11,201'		Elev. Back TD 11,160'		Elevation		Form or Lease Name STATE CX
Csg. Size 5 1/2	Wt.	d	Set At 11,201'	Perforations From 10,923' To 11,034'		Well No. 1		
Tng. Size 2 7/8	Wt.	d	Set At 10,833'	Perforations From OPEN To END		Unit 28	Sec. 19s	Twp. 28E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE					Packer Set At 10,823'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 184°		Mean Annual Temp. °F 60°		Baro. Press. - P ₀ 13.2		State NEW MEXICO
L 10,971'	H 10,971'	Gg .626	% CO ₂	% N ₂	% H ₂ S	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							2420				72 HRS
1.	4	x	1,250	600	6	79	2322				1 HR
2.	4	x	1,250	600	11	80	2262				1 HR
3.	4	x	1,250	600	19	77	2140				1 HR
4.	4	x	1,250	600	38	67	1974				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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.469	60.66	613.2	.9822	1.264	1.051	591
2	7.469	82.13	613.2	.9813	1.264	1.051	800
3	7.469	107.94	613.2	.9840	1.264	1.052	1055
4	7.469	152.65	613.2	.993	1.264	1.056	1512
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	45.183 Mcf/bbl.
1	.91	539	1.48	.905	A.P.I. Gravity of Liquid Hydrocarbons	59 @ 60 Deg.
2	.91	540	1.48	.905	Specific Gravity Separator Gas	.626 X X X X X X X X
3	.91	537	1.47	.903	Specific Gravity Flowing Fluid	X X X X X G, MIX .689
4	.91	527	1.44	.896	Critical Pressure	671 P.S.I.A. 669 P.S.I.A.
5					Critical Temperature	365 R 385 R

NO.	P _f	P _s	P _s ²	P _f ² - P _s ²	(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 3.288$	(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 2.454$
1	3134.2	9823.2	982.5			
2	3065.2	9395.5	1410.2			
3	2957.2	8745.0	2060.7			
4	2742.2	7519.7	3286.0			
5						

Absolute Open Flow 3,710 Mcfd @ 15.075			Angle of Slope 53	Slope, n .754
--	--	--	-------------------	---------------

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH KUSTER GAUGE. WELL MADE 3.65 BRLS OF COND. DURING TEST			
Approved By Commission:	Conducted By: JOHN WEST ENG. CO.	Calculated By: RER	Checked By: MCT