

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial		Test Date 8-11-78		AUG 23 1978	
Company CITIES SERVICE COMPANY		To Air		O.C.C.	
Pool East Carlsbad morrow LA HUERTA		MORROW		ARTESIA, OFFICE	
Completion Date 8-11-78		Elevation 11,785'		Elevation 11,690'	
Well No. 1		3201 KB		GOVERNMENT "AE"	
Well Size 5 1/2"		Well At 11,785'		Well No. 1	
Well Size 2 7/8"		Well At 11,329'		Unit J	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple		Packer Set At 11,310'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 190 @ 11,423'		State NEW MEXICO	
L 11423		H 11423		Cg 0.608	
Cg 1.053		% N ₂ 1.510		% H ₂ S -0-	
Prover 4"		Meter Run 4"		Taps FLANGE	
FLOW DATA					
NO	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Flow Temp. °F
1	4"	x	1.000"	590	83
2	4"	x	1.000"	600	73
3	4"	x	1.000"	600	72
4	4"	x	1.000"	600	72
5					
RATE OF FLOW CALCULATIONS					
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor F_t	Gravity Factor F_g
1	4.753	34.73	603.2	.9786	1.282
2	4.753	55.37	613.2	.9877	1.282
3	4.753	70.04	613.2	.9887	1.282
4	4.753	82.13	613.2	.9887	1.282
5					
NO	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio
1	.90	543	1.52	.915	DRY
2	.91	533	1.49	.908	A.P.I. Gravity of Liquid Hydrocarbons
3	.91	532	1.49	.908	Specific Gravity Separator Gas
4	.91	532	1.49	.908	Specific Gravity Flowing Fluid
5					Critical Pressure
					Critical Temperature
P _c 1778.3					P _c 3162.4
NO	P _c ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.265$
1	1599.3	2557.8	604.6		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.145$
2	1381.6	1208.8	1253.6		
3	1127.2	1270.6	1891.8		
4	814.2	662.9	2499.5		
5					
Absolute permeability = 594					Angle of Slope = 60
Remarks: *CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES. BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 11,423'. NO FLUID MADE DURING THE TEST.					Slope, n = .577
Approved By Commission:		Conducted By:		Checked By:	
B.R.D.		R.R.		J.W.W.	