

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12-4-81		DEC 11 1981							
Company W. A. MONCRIEF, JR.		Connection EL PASO NATURAL GAS COMPANY		O. C. D.							
Pool Widest Crooked Creek		Formation Strawn		Unit K ARTESIA OFFICE							
Completion Date 11-23-81		Total Depth 10,700		Plug Back TD 9,629							
Elevation 3,993 G.L.		Farm or Lease Name Crooked Creek St. COM		Well No. 1							
Csg. Size 4.5		Wt. 11.6		Set At 10,694							
Perforations: From 9,439 To 9,445		Well No. 1		Unit K							
Tbg. Size 2 3/8		Wt. 4.7		Set At 9,309							
Perforations: From Open To Ended		Unit K		Sec. 01							
Type well - Single - Brdenhead - G.C. or G.O. Multiple Single		Packer Set At 9,309		County Eddy							
Producing Thru Tbg.		Reservoir Temp. °F 168 @ 9,442		Mean Annual Temp. °F 60°							
Baro. Press. - P _g 13.2		State New Mexico		Taps Flg.							
L 9,309		H 9,309		G _g .602							
% CO ₂ .38		% N ₂ .66		% H ₂ S .0							
Prover -----		Meter Run 4"		Taps Flg.							
FLOW DATA											
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	Duration of Flow
SI							2731				48 hrs.
1.	4 X 1.500			627	1.0	70	2704				45 min.
2.	4 X 1.500			640	4.0	70	2657				45 min.
3.	4 X 1.500			643	9.0	64	2592				45 min.
4.	4 X 1.500			656	18.49	58	2461				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	10.84	25.30	640.2	.9905	1.289	1.051	368				
2	10.84	51.12	653.2	.9905	1.289	1.052	744				
3	10.84	76.85	656.2	.9962	1.289	1.055	1,129				
4	10.84	111.24	669.2	1.002	1.289	1.060	1,651				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ None _____ Mcf/bbl.						
1	.96	530	1.48	.905	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	.98	530	1.48	.903	Specific Gravity Separator Gas .602 X X X X X X X X						
3	.98	524	1.47	.899	Specific Gravity Flowing Fluid X X X X X						
4	1.00	518	1.45	.890	Critical Pressure 671 P.S.I.A. P.S.I.A.						
5					Critical Temperature 358 R R						
P _c 2744.2 P _c ² 7530.6											
NO.	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.636$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.141$							
1	2718.0	7387.5	142.8	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.185$							
2	2673.0	7144.9	385.4								
3	2612.1	6823.1	707.2								
4	2488.8	6194.1	1336.2								
5											
Absolute Open Flow 5,185 Mcfd @ 15.025 Angle of Slope @ 56.5° Slope, n .662											
Remarks: Well made no measurable fluid during test.											
Approved by Division _____ Conducted by: EL PASO EXPLORATION CO. Bob McMurray Calculated by: EL PASO EXPLORATION CO. Bob McMurray Checked by:											