

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-14-88			
Company CONOCO, INC.				Connection EPNG PIPELINE			
Pool EUMONT				Formation QUEEN			
Completion Date 10-28-88		Total Depth 3680		Plug Back TD 3670			
Elevation 3570 GL		Farm or Lease Name LOCKHART B					
Coq. Size 5.500	Wt. 15.5	d 4.950	Set At 3680	Perforations: From 3448 To 3606			
Well No. .10							
Fig. Size 2.375	Wt. 4.7	d 1.995	Set At 3347	Perforations: From OPEN To ENDED			
Unit E	Sec. 14	Twp. 215	Rge. 36E				
Type Well - Single - Dradthead - G.C. or G.O. Multiple SINGLE-GAS				Packer Set At 3347			
Producing Thru TUBING		Reservoir Temp. °F 105 @ 3527		Mean Annual Temp. °F 60			
Baro. Press. - P _a 13.2		State NEW MEXICO					
L 3527	H 3527	Cg .725	% CO ₂ 3.75	% N ₂ 1.40	% H ₂ S .13		
Provor -		Meter Run 4.0		Taps FLANGE			
FLOW DATA							
NO.	Provor Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw		
SI					Temp. °F		
1.	4.03X1.500		63	3.6	62		
2.	4.03X1.500		63	7.8	62		
3.	4.03X1.500		64	18.5	60		
4.	4.03X1.500		66	36.0	60		
5.							
TUBING DATA							
CHOKE			Press. p.s.i.g.	Temp. °F	Duration of Flow		
			200	213	105		
			192	208	105		
			186	206	105		
			173	198	105		
			154	192	105		
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	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	16.53	75.7	0.9981	1.1744	1.0084	212
2	10.84	24.51	76.6	0.9981	1.1744	1.0085	314
3	10.84	37.81	77.3	1.000	1.1744	1.0087	486
4	10.84	53.40	79.2	1.000	1.1744	1.0089	686
5							
NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
1	0.11	522	1.35	.983	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	0.11	522	1.35	.983	Specific Gravity Separator Gas _____		
3	0.11	520	1.34	.983	Specific Gravity Flowing Fluid _____		
4	0.12	520	1.34	.982	Critical Pressure _____ P.S.I.A.		
5					Critical Temperature _____ R		
P _c 206.4 P _c ² 43					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.5463$		
NO. P _t P _w P _w ² P _c ² - P _w ²					(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.9373$		
1		202	41	2	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 27.01$		
2		200	40	3			
3		193	37	5			
4		187	35	8			
Absolute Open Flow _____ Mcfd @ 15.025					Angle of Slope @ _____		Slope, n _____
Remarks: BHP MEASURED WITH AMERADA PRESSURE ELEMENTS							
JAN 12 1989							
Approved By Division Orig. Signed by Paul Kautz Geologist		Conducted By: BENNETT CATHEY		Calculated By: MATT LEE		Checked By:	