

155
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-21-88		JAN 12 '89			
Company B.H.P. PETROLEUM INC.			Connection AIR NEW WELL				
Pool Widest Montoya			Formation MONTOKA				
Completion Date 11-18-88		Total Depth 6592		Plug Back TD 6510			
				Elevation 0			
Csg. Size 5.500			Wt. 15.5		d 4.950		
Thq. Size 2.875			Wt. 6.4		d 2.441		
			Set At 6592		Set At 5900		
			Perforations: From 6164 To 6172		Perforations: From OPEN ENDED To		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 5900		Unit ARTESIA, OFFICE		
Producing Thru TUBING			Reservoir Temp. °F 128 @ 6168		Mean Annual Temp. °F 60		
			Baro. Press. - P _a 13.2		State NEW MEXICO		
L 6168		H 6168		G _g 0.661		% CO ₂ 1.69	
				% N ₂ 3.77		% H ₂ S 0	
				Prover 0		Meter Run 4.0	
						Taps FLANGE	

FLOW DATA						TUBING DATA		BHP 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.	CHOKE	Press. p.s.i.g.		Temp. °F
1.	4.03	X	1.250	590	5.0	81	1965	9/64	2394	128	72.
2.	4.03	X	1.250	600	21.0	82	1820	11/64	2366	128	1
3.	4.03	X	1.250	600	42.0	80	1715	13/64	2240	128	1
4.	4.03	X	1.250	600	82.0	78	1590	15/64	2106	128	1
5.									1931	128	1

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 _{sp}	Rate of Flow Q, Mcf/d
1.	7.47	54.92	603.2	0.9804	1.230	1.0496	519.0
2.	7.47	113.48	613.2	0.9795	1.230	1.0501	1072.0
3.	7.47	160.48	613.2	0.9813	1.230	1.0508	1520.0
4.	7.47	224.24	613.2	0.9831	1.230	1.0516	2130.0
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.90	541.	1.48	0.908	0.	0.	0.661	X X X X X	670.	364
2.	0.91	542.	1.49	0.907						
3.	0.91	540.	1.48	0.906						
4.	0.91	538.	1.48	0.904						
5.										

P _c 2016.0		P _c ² 4064	
NO.	P _t ²	P _w	P _w ²
1	1993	3970	94.
2	1889	3567	497.
3	1778	3160	904.
4	1634	2672	1393.
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.9184$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4328.$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.032$

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NOV 2 - 1988

Absolute Open Flow 4328 Mcfd @ 15.025		Angle of Slope θ 56.5		Slope, n .0662	
Remarks: BHP MEASURED WITH AMERADA PRESSURE ELEMENTS					
Approved By Division		Conducted By: BENNTT-CATHEY		Calculated By: MATT LEE	
				Checked By:	