

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special		Test Date 8-21-87		AUG 25 '87							
Company BHP PETROLEUM INC.		Connection TO AIR		C. C. D. ARTESIA OFFICE							
Pool Wildcat Well		Formation		Unit							
Completion Date 8-17-87		Total Depth 11,515		Plug Back TD 10630							
Csg. Size 7		Wt. 23		Elevation 9338							
Perforations: From 9328 To 9338		Set At 10630		Farm or Lease Name CERF FEDERAL							
Thq. Size 2.875		Wt. 6.4		Well No. 1							
Perforations: From 9254 To		Set At 9254		Unit Sec. Twp. Rge. C 10 31 27							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At 9254		County EDDY							
Producing Thru TUBING		Reservoir Temp. °F 212		State NEW MEXICO							
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		Meter Run 4.026							
L 9333		H 9333		Taps FLNG							
G _g .753		% CO ₂ .34		% H ₂ S 0							
Prover 0		Prover 0		Prover 0							
FLOW DATA		TUBING DATA		BHP DATA							
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
1.	4.026	X	1.250	92	3	102	2837	84	5349	212	90.0
2.	4.026	X	1.250	97	5.2	104	2567	84	4690	212	1.0
3.	4.026	X	1.250	100	8.7	101	2275	84	4394	212	1.0
4.	4.026	X	1.250	100	14.0	84	1984	84	4002	212	1.0
5.									3564	212	1.0
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, Mcfd				
1	7.469	17.77	105.2	.9619	1.1524	1.0105	149				
2	7.469	23.94	110.2	.9602	1.1524	1.0108	200				
3	7.469	31.38	113.2	.9628	1.1524	1.0114	263				
4	7.469	39.81	113.2	.9777	1.1524	1.0129	339				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 6.5 Mcf/bbl.						
1	.16	562	1.39	.979	A.P.I. Gravity of Liquid Hydrocarbons 55.3		Deg.				
2	.17	564	1.40	.979	Specific Gravity Separator Gas .753		XXXXXXX				
3	.17	561	1.39	.978	Specific Gravity Flowing Fluid XXXXX		1.098				
4	.17	544	1.35	.975	Critical Pressure 665 P.S.I.A.		648 P.S.I.A.				
5					Critical Temperature 403 R		511 R				
$P_c = 3711.6 P_r^2 = 13776$											
NO.	P _r	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4577$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4577$				
1		3097	9589	4188							
2		2824	7973	5803							
3		2468	6089	7687							
4		2080	4326	9451							
5											
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 495$											
Absolute Open Flow 495 Mcfd @ 15.025 Angle of Slope 45.0 Slope, n 1.000											
Remarks:											
Approved By Division Conducted By: MATT LEE Calculated By: RICHARD TOWNLEY Checked By:											

Post ID-2
11-20-87
comp Well.