

45F
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special					Test Date 11-11-87		JAN 14 '88	
Company BETTIS, BOYLE & STOVALL				Connection TO AIR				
Pool WILDCAT				Formation MORROW				Unit ARTESIA OFFICE
Completion Date 11-11-87		Total Depth 13,390'		Plug Back TD 13,785'		Elevation 2944.8 GL		Farm or Lease Name PICKETT DRAW FED
Coq. Size 5.5	Wt. 23	d	Set At	Perforations: From 13206 To 13410		Well No. 1		
Thq. Size 2.875	Wt. 8.7	d	Set At 13085	Perforations: From To		Unit Sec. Twp. Rge. 9 25 21		
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE					Packer Set At 13085		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO		
L 13308	H 13308	G _g 0.564	% CO ₂ 0.24	% N ₂ 0.53	% H ₂ S 0	Prover 0	Meter Run 4.026	Taps FLNG.

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.	Temp. °F	Press. p.s.i.g.		Temp. °F
1	4.026		2.250	210	3.0	62	5550	64			60 MIN
2	4.026		2.250	210	6.0	74	5320	64			60 MIN
3	4.026		2.250	220	11.0	77	5025	66			60 MIN
4	4.026		2.250	220	22.0	78	4500	67			60 MIN
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	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	25.64	25.88	223.2	0.9981	1.3316	1.0169	897
2	25.64	36.60	223.2	0.9868	1.3316	1.0156	1252
3	25.64	50.65	233.2	0.9840	1.3316	1.0159	1729
4	25.64	71.63	233.2	0.9831	1.3316	1.0158	2443
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	0.33	522	1.51	0.967			0.564		674	345
2	0.33	534	1.55	0.970						
3	0.35	537	1.55	0.969						
4	0.35	538	1.56	0.969						
5										

P_c 5833.9 P_c² 34035

NO.	P _i	P _w	P _w ²	P _c ² - P _w ²
1		5563	30944	3090
2		5334	28456	5579
3		5040	25399	8636
4		4520	20435	13600
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.5026$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9482$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4759.4$

Post ID-2
1-29-88
comp & BK

Absolute Open Flow	4759	Mcf/d @ 15.025	Angle of Slope	54°	Slope, n	0.727
Remarks:						
Approved By Division						
Conducted By:		BENNETT & CATHEY		Calculated By:		Matthew Lee
				Checked By:		