

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

6/5F

C-122

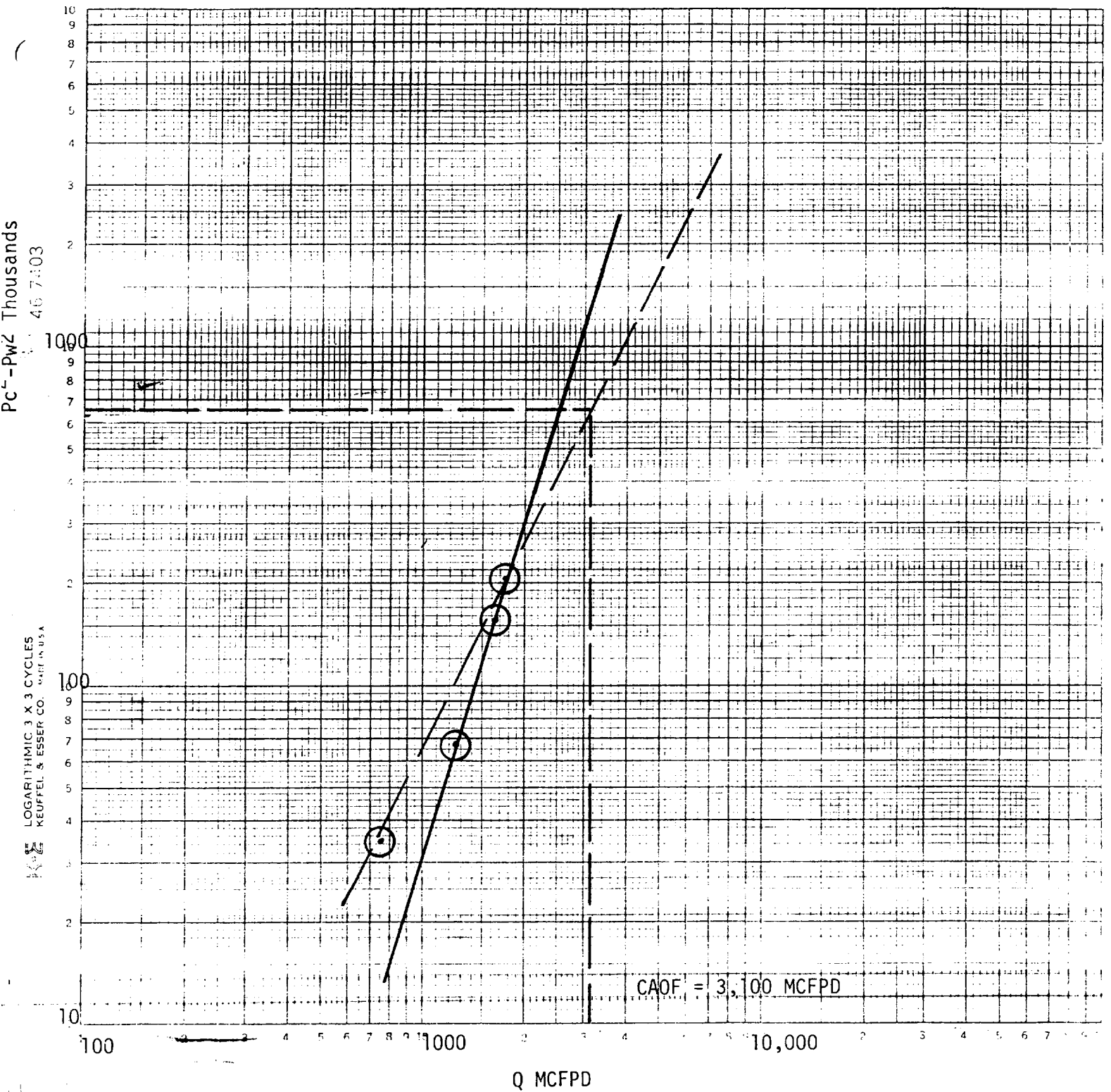
Type Test USGS ☒ Initial ☐ Annual ☐ Special				Test Date 2-18-82		Date Received 3-1-82	
Company MESA PETROLEUM CO.				Connection Unconnected			
Pool Pecos Slope ABO				Formation ABO		Unit	
Completion Date 2-18-82		Total Depth 4398'		Plug Back TD 3959'		Elevation 3725' GR	
Furn. or Lease Name Burtis Com				Well No. 1			
Csg. Size 4 1/2"	Wt. 10.4#	d 	Set At 4398'	Perforations: From 3692' To 3953'		Unit Sec. Twp. Rge. I 11 7S 25E	
Tub. Size 2 3/8"	Wt. 4.7#	d 	Set At 3598'	Perforations: From open ended To 			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Chaves	
Producing Thru tubing		Reservoir Temp. °F 102 @ 4398		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 	R 	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S 	Prover 2" CHOKE	Meter Run
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	x	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Duration of Flow
1.							
2.	CHOKE						
3.	COEFF						
4.							
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, Mhd
1.	.6778	CHOKE	899	.9933	1.24		751
2.	1.187	CHOKE	865	.9905	1.24		1261
3.	1.817	CHOKE	733	.9924	1.24		1639
4.	2.587	CHOKE	553	.9952	1.24		1765
5.							
NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mol/mol.		
1.					A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.		
2.					Specific Gravity Separator Gas _____ X X X X X X X X X		
3.					Specific Gravity Flowing Fluid _____ X X X X X		
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.		
5.					Critical Temperature _____ R _____ R		
P _c 813		P _w 661					
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²			
1.		791	626	35			
2.		771	594	67			
3.		710	504	157			
4.		673	453	208			
5.							
					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.1779$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7827$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,100$		
Absolute Open Flow 3,100				Mhd @ 15.025		Angle of Slope 63.5	
						Slope, n 1.7827	
Remarks: Plot of P_c² - P_w² vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.							
Approved By Commission		Conducted By: James Craig		Calculated By: EB 2-25-82 E.L. Buttross, JR.		Checked By:	

Mesa Petroleum Co.

Burtis Com #1

Chaves Co., NM

2-18-82



Assumed $N = .5$ and $\theta = 63.5^\circ$