

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

Form C-122
Revised 9-1-65

c/SF
C-122

APR 1982

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-15-82	
Company MESA PETROLEUM CO.				Connection Unconnected	
Pool Peep Slope Undesignated ABO				Formation ABO	
Completion Date 3-15-82		Total Depth 4150'		Plug back TD 4030'	
				Elevation 3772'	
Form. or Lease Name Alkali Federal Co.					
Csg. Size 4 1/2"	Wt. 10.5#	Set At 4083'	Perforations: From 3715' To 4001'		Well No. 5
Tub. Size 2 3/8"	Wt. 4.7#	Set At 3620'	Perforations: From open ended To		Unit Sec. Twp. Rpt. K 15 5S 25E
Type Well - Single - Wardenhead - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru tubing				State New Mexico	
Reservoir Temp. °F 101 @ 4150		Mean Annual Temp. °F 60		Buro. Press. - P ₀ 13.2	
L	R	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S 2" ORIFICE WELL TESTER

FLOW DATA						TUBING DATA		CASING 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.	2" ORIFICE		3/4	3		64	750		750		72 hr. SI
2.	WELL						240		250		1 hr.
3.	TESTER										
4.											
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. Compens. Factor, F _{pv}	Rate of Flow Q, Mhd
1	124	2" ORIFICE WELL		.9962	.9608		119
2		TESTER					
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mhd/Sbl.
1					A.P.I. 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 _____ °F _____ °R

P _r	763	P _w	582
NO.	P _r	P _w	P _r ² - P _w ²
1		263	69
2			
3			
4			
5			

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.1423$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.1423$

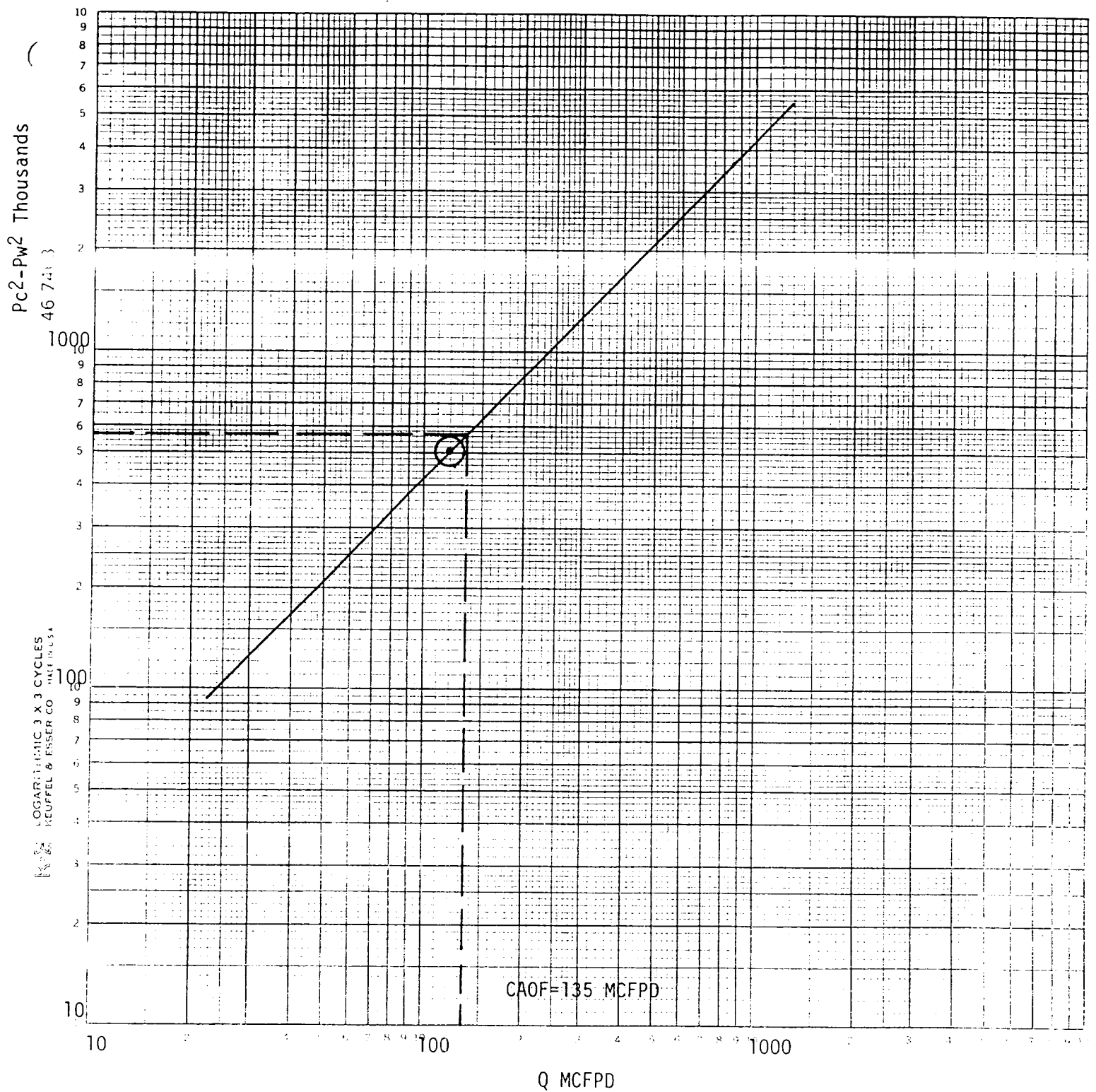
ADP = 0 $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 135$

Absolute Open Flow	135	Mhd @ 15.025	Angle of Slope θ	45°	Slope, n	1
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Remarks: Unable to run four flow rates due to low delivery of well. Assumed N=1 and based calculations on one point test.

Approved By Commission:	Conducted By: James Craig	Calculated By: 248 3-17-82 E. L. Buttross, Jr.	Checked By:
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... Petroleum Co.
 ... Federal No. 5
 Chaves County, New Mexico
 3-15-82



Assumed $N=1$ and $\theta=45^\circ$