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Print Date
2-11-82

FEB 25 1982

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2-11-82		FEB 25 1982	
Company MESA PETROLEUM CO.			Connection UNCONNECTED		O. C. D.
Pool UNDESIGNATED ABO			Formation ABO		Unit ARTESIA, OFFICE
Completion Date 2-11-82		Total Length 4200'	Plug back TD 4130'	Elevation 3696'	Pack or Lease Name ALKALI FEDERAL
Csg. Size 4 1/2"	Wt. 10.5#	d 	Set At 4165'	Perforations: From 3741' To 4054'	Well No. 7
Tubg. Size 2 3/8"	Wt. 4.7#	d 	Set At 3654'	Perforations: From OPEN ENDED	Unit Sec. Twp. Page G 22 5S 25E
Type Well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE			Packer Set At NONE		County CHAVES
Producing Thru TUBING		Reservoir Temp. °F 101 @ 4200	Mean Annual Temp. °F 60	Buro. Press. - P _a 13.2	State NEW MEXICO
L	H	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S Prover 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
SI							925		915		72 HR SI
1.	2" ORIFICE	1 1/4	.5			42	85		247		1 HR
2.	WELL										
3.	TESTER										
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, Mcfd
1	153	2" ORIFICE	WELL	1.0078	.9608		148
2		TESTER					
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
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 _____ R _____ R

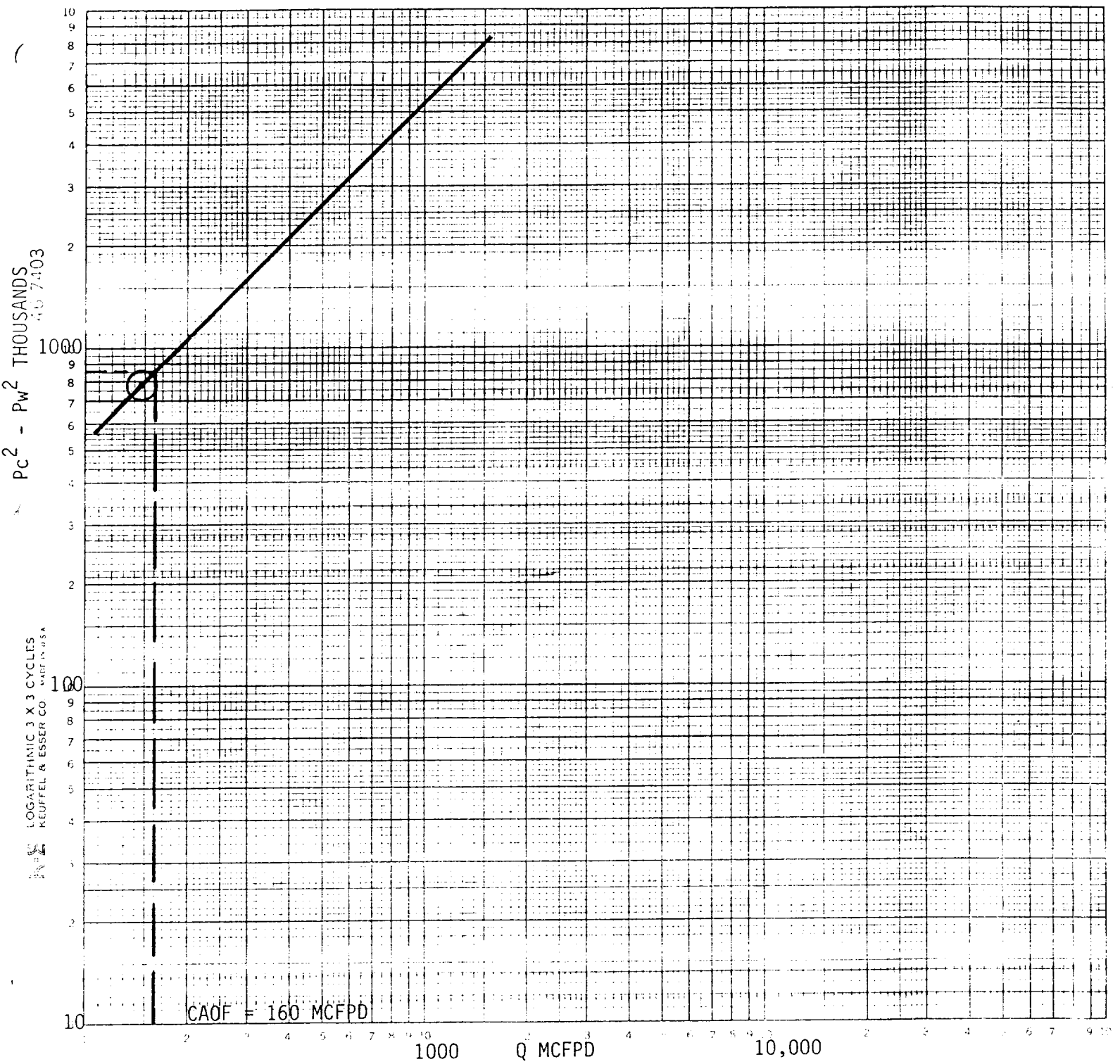
NO.	P _c	P _w	R _w	P _c ² - R _w ²	(1) $\frac{P_c^2}{P_c^2 - R_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n =$
1	926	260	68	857	1.0862	1.0862
2						
3						
4						
5						

Absolute Open Flow 160 Mc/d @ 15.025 Angle of Slope θ 45° Slope, n 1

Remarks: UNABLE TO RUN FOUR FLOW RATES DUE TO LOW DELIVERY OF WELL. ASSUMED N = 1
 BASED CALCULATIONS ON ONE POINT TEST

Approved By Construction:	Conducted By: JAMES CRAIG	Calculated By: EL L. BUTTROSS, JR.	Checked By:
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MESA PETROLEUM CO.
 ALKALI FEDERAL NO. 7
 CHAVES COUNTY, NEW MEXICO
 FEBRUARY 11, 1982



ASSUMED $N = 1$ AND $\phi = 45^\circ$