

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

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2-19-82		APR 2 1982		
Company MESA PETROLEUM CO. ✓					Connection Unconnected		O. C. D.		
Pool <i>Pecos Slope</i> Undesignated ABO					Formation ABO		Unit ARTESIA, OFFICE		
Completion Date 2-19-82		Total Depth 4217		Plug Back TD 4139'		Elevation 3857'		Farm or Lease Name Lodewick Federal	
Csg. Size 4 1/2	Wt. 10.5#	d	Set At 4200'	Perforations: From 3648' To 3802'		Well No. 2			
Tub. Size 2 3/8	Wt. 4.7#	d	Set At 3546'	Perforations: From open ended To		Unit C 17 5S 25E			
Type Well - Single - Packerhead - G.G. or G.O. Multiple single					Packer Set At None		County Chaves		
Producing Thru tubing		Reservoir Temp. °F 101 @ 4217		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L	R	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" ORIFICE WELL TESTER		Meter Run Feet	

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							940		930		86 hr. SI
1.	2" ORIFICE	1 1/4		7.5		20	220	50	345		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 Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	637	2" ORIFICE WELL		1.0098	.9608		618
2		TESTER					
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mol/Gal.			
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			

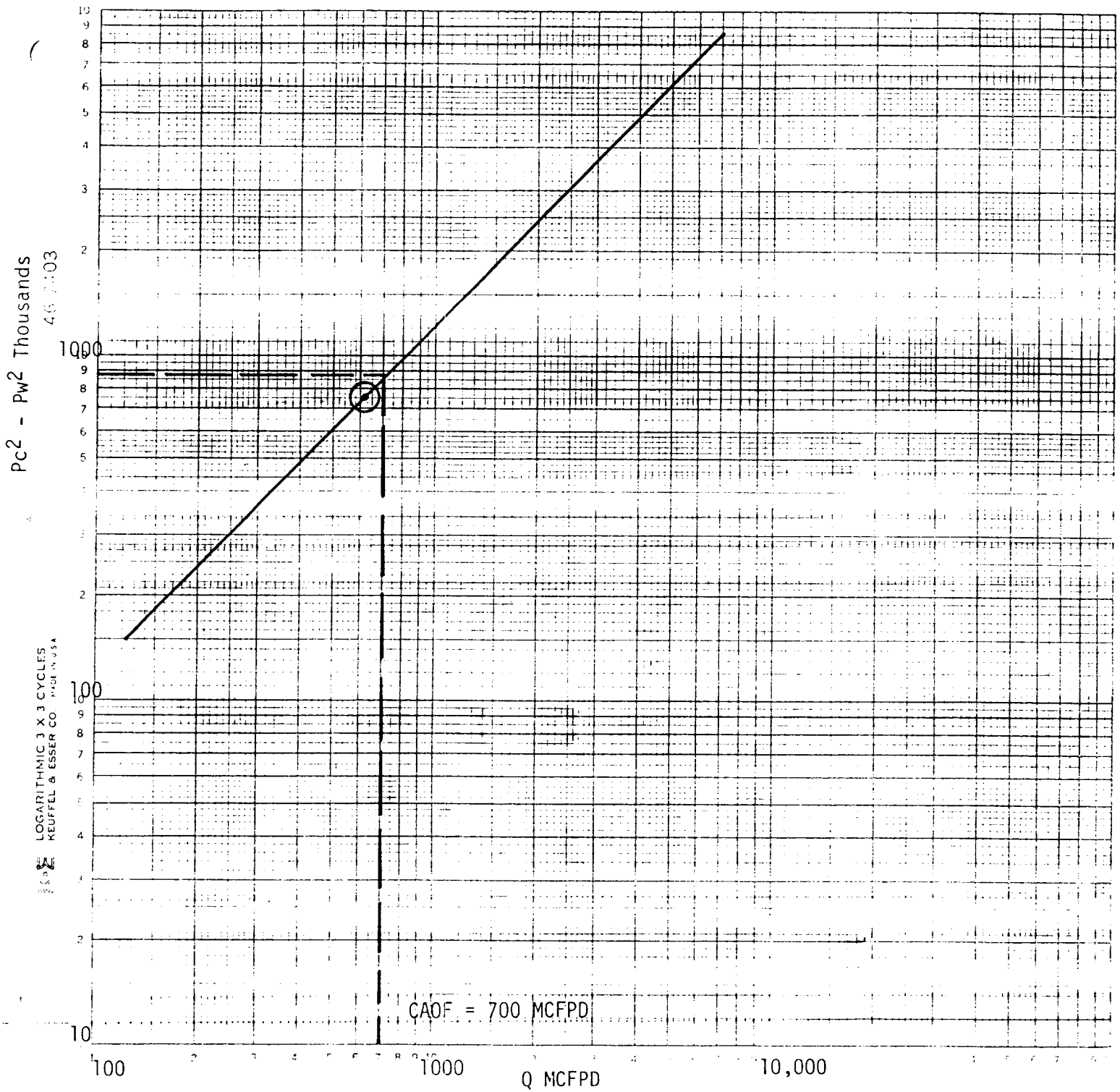
NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²	$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.1682$ $(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.1682$ $ADP = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 700$
1		358	128	761	
2					
3					
4					
5					

Absolute Open Flow 700 _____ Mscf/d 15.625		Angle of Slope 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: EAB 2-25-82 E.L. Buttross, Jr.	Checked By:
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Lodewick Federal #2
Chaves Co., New Mexico
2-19-82



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