

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

Form C-122
 Revised 9-1-65

RECEIVED

C/SF
C-122

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-10-82		APR 28 1982	
Company Mesa Petroleum Co. ✓				Connection Unconnected		O. C. D.	
Pool Undesignated ABO				Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 4-10-82		Total Depth 4450'		Plug Back TD 4374'		Elevation 3641'	
Csg. Size 4 1/2		Wt. 10.5#		Set At 4442		Perforations: From 3733 To 4330	
Thq. Size 2 3/8		Wt. 4.7#		Set At 3626'		Perforations: From open ended To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		Farm or Lease Name Spring Fed Com	
Producing Thru Tubing		Reservoir Temp. °F 102 @ 4450'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		G _g .65		% CO ₂ 1	
				% N ₂ 1		% H ₂ S	
Prover 2" orifice well tester				Meter Run 2" orifice well tester			
Taps							

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1025		980		65 hr. SI
1.	2" orifice	1 1/4	9			48	865	63	835		1 hr.
2.	well	1 1/4	15.5			52	620	68	660		1 hr.
3.	tester	1 1/4	18			60	465	78	480		1 hr.
4.		1 1/4	21			60	355	75	375		1 hr.
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	707	2" orifice	well	1.0117	.9608		687
2.	984	tester		1.0078	.9608		953
3.	1083			1.0000	.9608		1041
4.	1240			1.000	.9608		1191
5.							

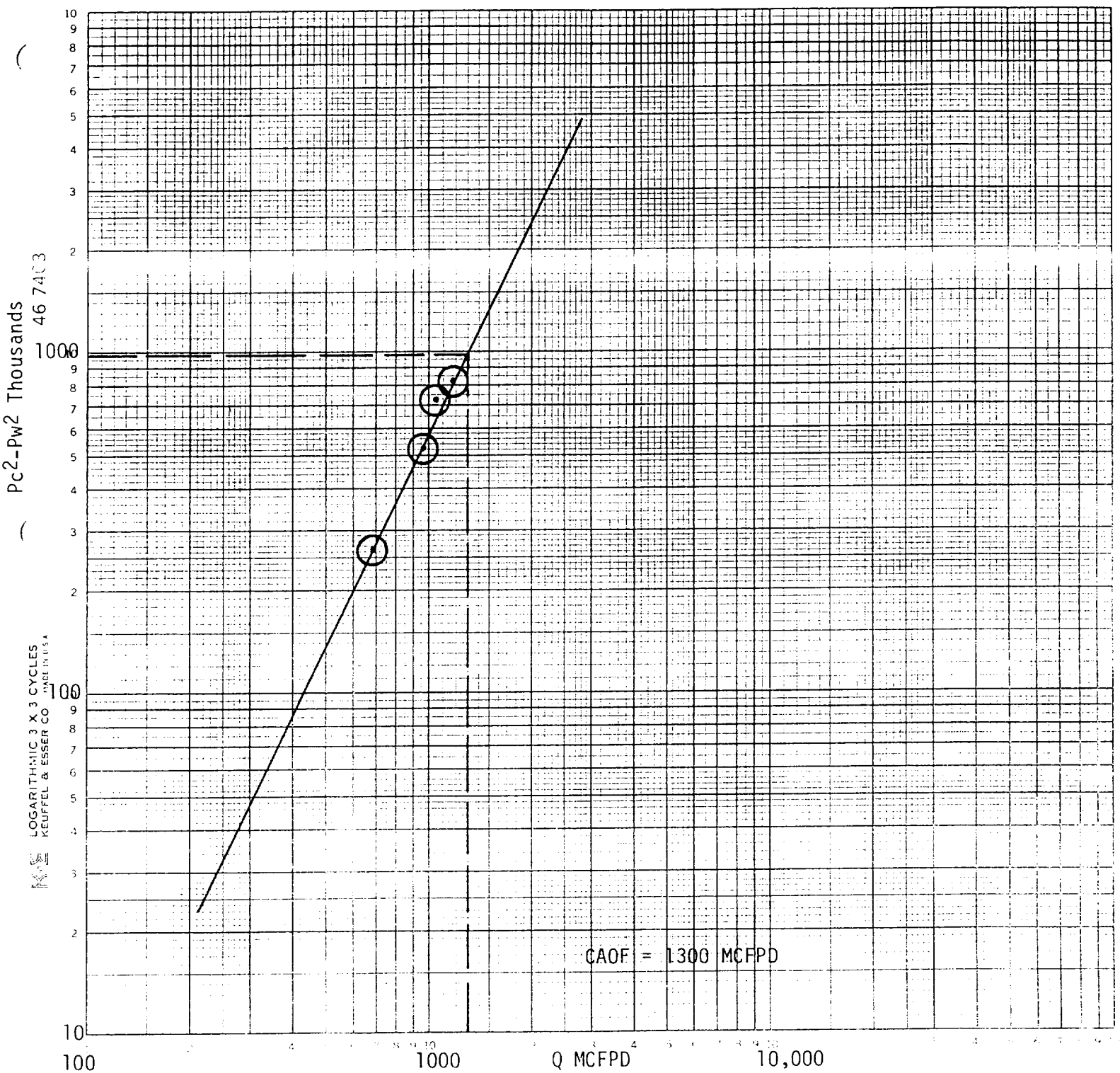
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 993	P _c ² 986	(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.1808$	(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.0867$
NO	P _t ²	P _w	P _w ²
1		848	719
2		673	453
3		493	243
4		388	151
5			

Absolute Open Flow 1,300 Mcfd @ 15.025		Angle of Slope θ 63.5°	Slope, n .50
--	--	------------------------	--------------

Remarks:			
Approved By Commission:	Conducted By: James Craig	Calculated By: <i>4-19-82</i> E. L. Buttross, Jr.	Checked By:

Mesa Petroleum Co.
 Sl ng Fed Com No. 3
 Chaves Co., NM
 4-10-82



$$N = 1/\text{slope} = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{cycle}} = \frac{\text{Log } 1300 - \text{Log } 420}{\text{cycle}} = \frac{3.12 - 2.62}{\text{cycle}} = .50$$

$$\theta = 63.5^\circ$$