

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3-31-81		APR 15 1981	
Company Mesa Petroleum Co. ✓				Connection Unconnected			O. C. D. ARTESIA OFFICE	
Pool Undesignated Abo				Formation Abo			Unit	
Completion Date 3-31-81		Total Depth 4200'		Plug Back TD 4117'		Elevation 4015'		Farm or Lease Name Camack Federal
Csg. Size 4 1/2	Wt. 10.5	d	Set At 4200'	Perforations: From 3512' To 3723'			Well No. 1	
Thq. Size 2 3/8	Wt. 4.7	d	Set At 3637'	Perforations: From Open Ended To			Unit Sec. Twp. Rge. J 9 5S 24E	
Type Well - Single - Bradenhead - G.G. or G.D. Multiple Single				Packer Set At None		County Chaves		
Producing Thru Tubing		Reservoir Temp. °F 100 @ 4200		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 3637	H 3637	G _g .65	% CO ₂	% N ₂ 5	% H ₂ S	Prover 2" Orifice	Meter Run Well Tester	Taps

FLOW DATA						TUBING DATA		CASING DATA		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							880		890		72 hr +
1.	2" Orifice			2.5		70	780	80	790		3/4 hr
2.	Well			3		70	715	80	735		1/2 hr
3.	Tester			5.5		70	450	80	635		1/2 hr
4.				8.0		70	380	80	575		1/2 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	206	2" Orifice Well	Tester	.9905	.9608		196
2.	227			.9905	.9608		216
3.	315			.9905	.9608		300
4.	390			.9905	.9608		371
5.							

NO.	P _r	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 890	P _c ² 792	
NO.	P _i ²	P _w ²
1		790
2		735
3		635
4		575
5		

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.0359$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 580$$

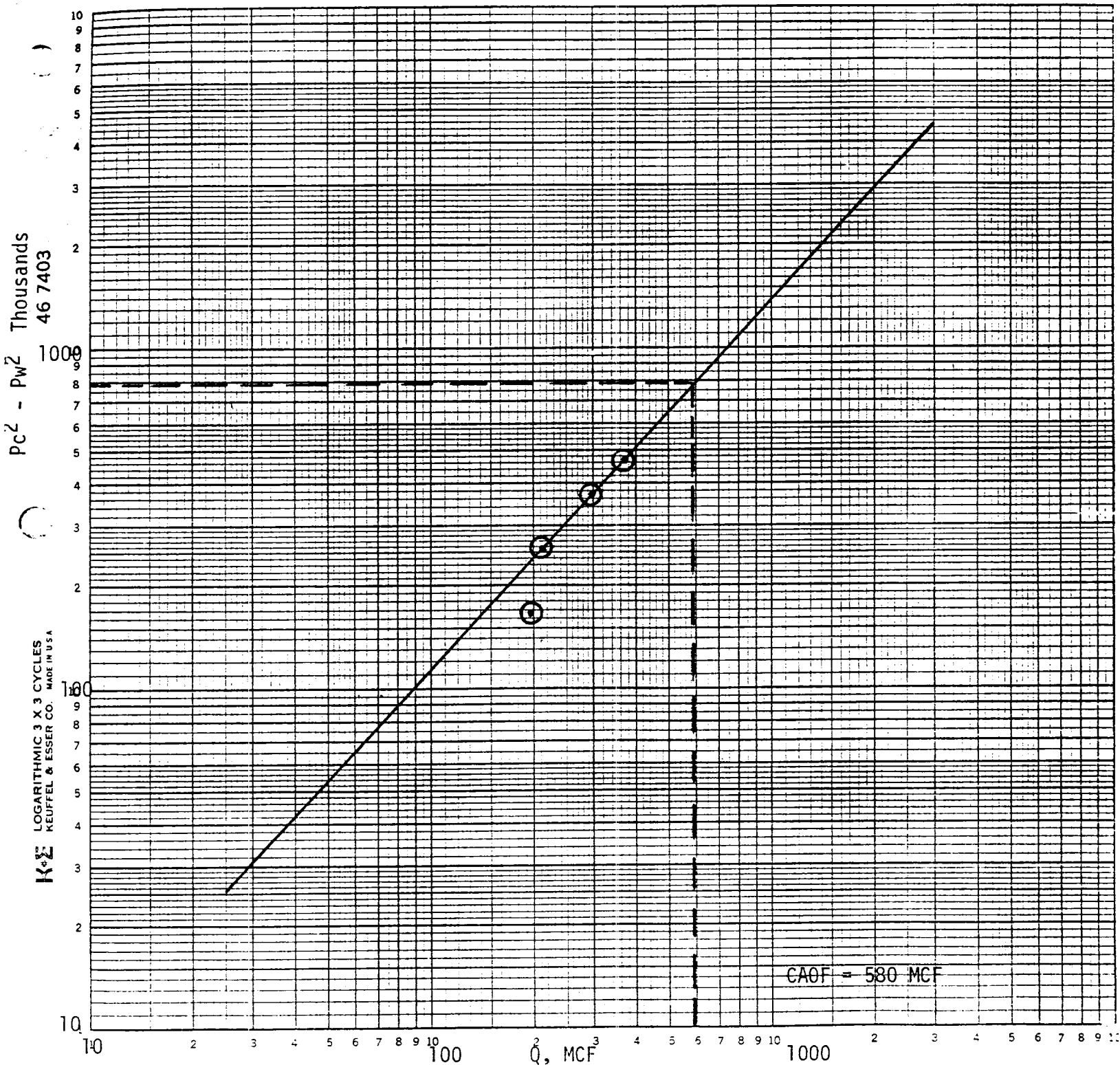
$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9371$$

Absolute Open Flow	580	Mcfd @ 15.025	Angle of Slope @	47.1°	Slope, n	.93
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Remarks:

Approved By Commission:	Conducted By:	Calculated By: <i>EUB</i>	Checked By:
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M Petroleum Co.
 Camack Federal #1
 Sec 9, T5S, R24E
 Chaves Co., NM
 3-31-81



$$1/\text{slope} = n = \frac{\log Q_2 - \log Q_1}{\text{Cycle}} = \frac{\log 750 - \log 90}{\text{Cycle}} = 2.88 - 1.95 = .93$$

$$\theta = 47.1^\circ$$