

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 3-12-81		MAR 30 1981	
Company Mesa Petroleum Co. ✓				Connection Unconnected		O.C.D. OIL FIELD OFFICE	
Pool Undesignated Abo				Formation Abo		Unit	
Completion Date 3-12-81		Total Depth 4400'		Plug Back TD 4334'		Elevation 3961'	
Csg. Size 4 1/2		Wt. 10.5		Set At 4397'		Perforations: From 3638' To 3898'	
Thq. Size 2 3/8		Wt. 4.7		Set At 3850'		Perforations: From Open Ended To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		Farm or Lease Name Bedford Federal Com	
Producing Thru Tubing		Reservoir Temp. °F 100# 4400'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 3850		H 3850		Gg .65		% CO ₂ % N ₂ % H ₂ S	
				6		Prover 2" Orifice Well Tester	
						Meter Run Taps	
						County Chaves	
						State New Mexico	

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							890		915		72 hr
1.	2" Orifice	1 1/4	10			50	845	80	870		3/4 hr
2.	Well	1 1/4	17			50	800	80	830		1/2 hr
3.	Tester	1 1/4	28			50	736	80	770		1/2 hr
4.		1 1/4	38			50	620	80	690		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	753	2" Orifice Well		1.0098	.9608		731
2	1044	Tester		1.0098	.9608		1013
3	1538			1.0098	.9608		1492
4	1917			1.0098	.9608		1860
5							

NO.	P _t	Temp. °R	T _f	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 915	P _c ² 837	
NO.	P _t ²	P _w ²
1	870	757
2	830	689
3	770	593
4	690	476
5		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 10.4625$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.1877$

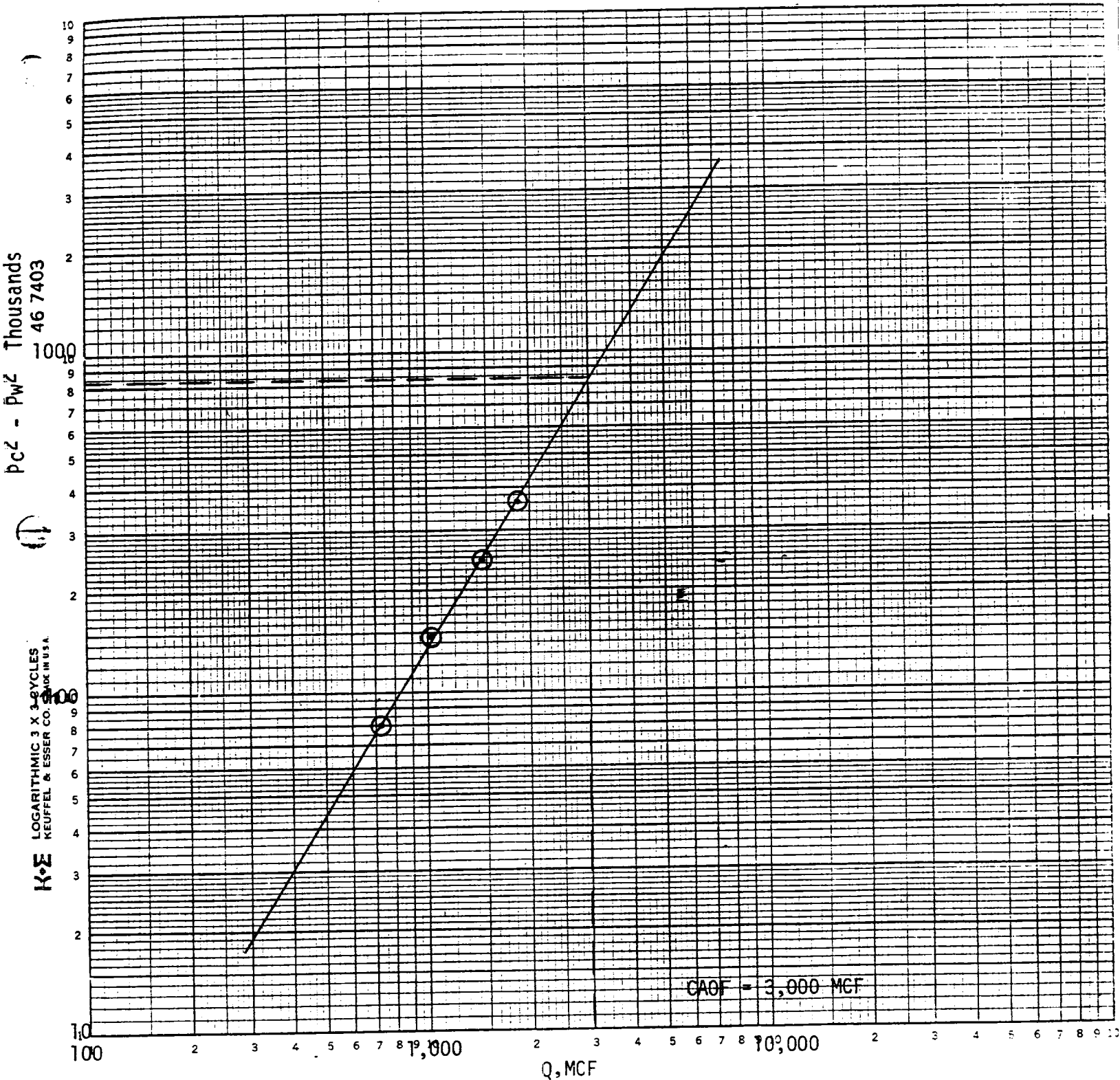
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.000$

Absolute Open Flow	3,000	Mcf/d @ 15.025	Angle of Slope θ	58.6°	Slope, n	.61
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Remarks: _____

Approved By Commission:	Conducted By: <i>EAB</i>	Calculated By: <i>EAB</i>	Checked By:
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Mesa Petroleum Co.
 Bedford Federal Com #1
 Sec 31, T6S, R25E
 Chaves County, New Mexico
 3-12-81



$$1/\text{slope} = n = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{Cycle}} = \frac{\text{Log } 3400 - \text{Log } 840}{\text{Cycle}} = \frac{3.53 - 2.92}{.61}$$

$$\theta = 58.6^\circ$$