

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT A ONE POINT BACK PRESSURE TEST OR GAS WELL

Form C-122
 Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 5-18-81		JUN 2 1981		
Company Mesa Petroleum Co. ✓				Connection Unconnected				C. O. O. ARTIST - OFFICE	
Pool Undesignated Abo				Formation Abo				Unit	
Completion Date 5-18-81		Total Depth 4465'		Plug Back TD 4360'		Elevation 3699'		Farm or Lease Name Davis	
Csg. Size 4 1/2	Wt. 10.5	d 4399	Set At 4399	Perforations: From 3686 To 3960		Well No. 1			
Thq. Size 2 3/8	Wt. 4.7	d 3600	Set At 3600	Perforations: From Open Ended To		Unit Sec. Twp. Rge. L 12 7S 25E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At None		County Chaves		
Producing Thru Tubing		Reservoir Temp. °F 105° @ 4400		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3600	H 3600	Gg .65	% CO ₂ 1	% N ₂ 4	% H ₂ S	Prover Choke	Meter Run	Taps	

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							960		975		65 hr SI
1.	Choke		13/64	930	---	80	930	80	948		3/4 hr
2.	Coefficients		19/64	860	---	80	860	80	890		3/4 hr
3.			24/64	770	---	80	803	80	803		3/4 hr
4.			27/64	655	---	80	740	80	740		1 hr
5.											

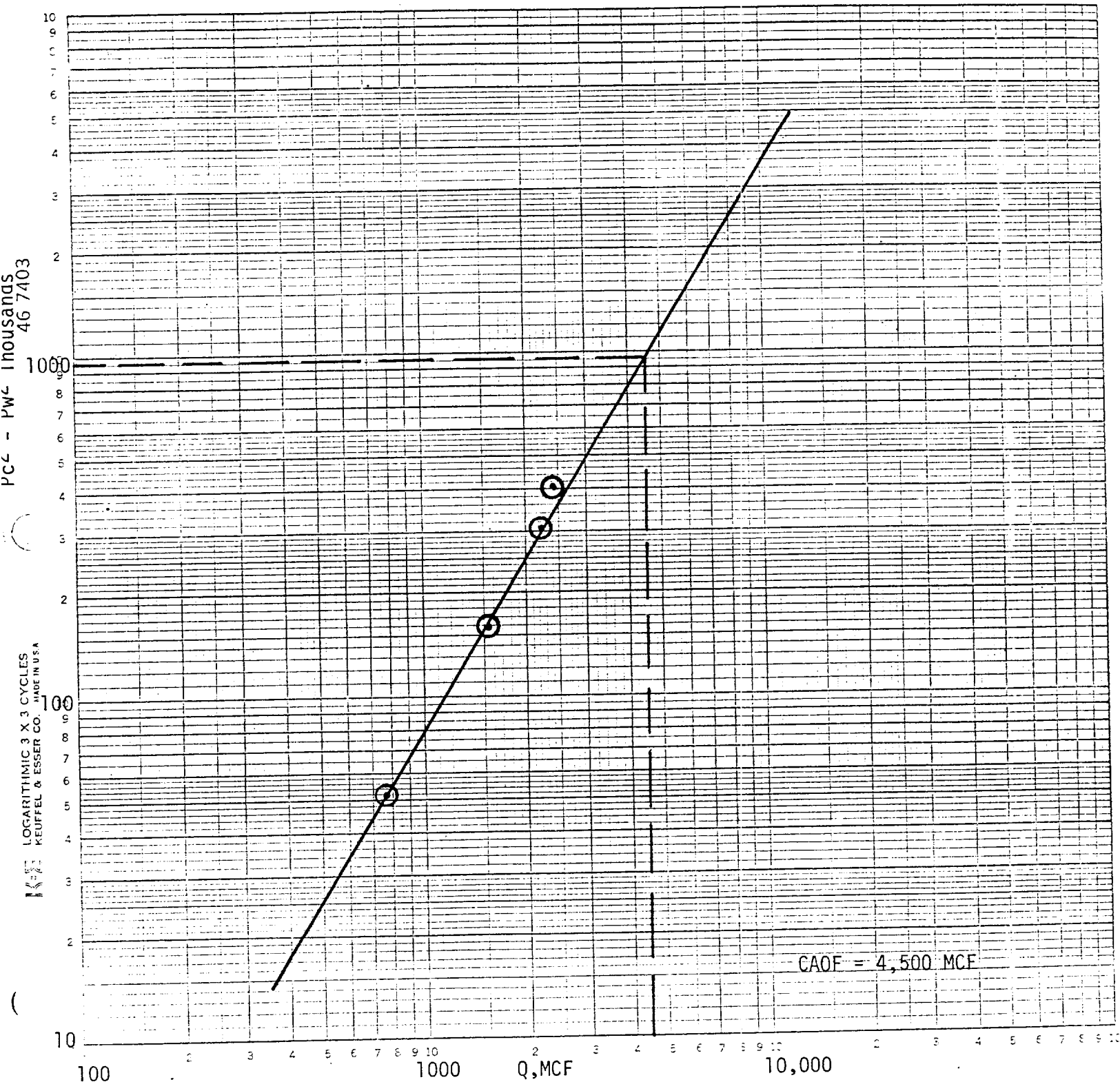
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	.6778	choke	930	.9813	1.240		767
2	1.484	choke	860	.9813	1.240		1552
3	2.388	choke	770	.9813	1.240		2237
4	3.009	choke	655	.9813	1.240		2398
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

$P_c = 975$ $P_c^2 = 951$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 5.9811$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.9246$	
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		948	899	52				
2		890	792	159				
3		803	645	306				
4		740	548	403				
5								

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4,500$				
Absolute Open Flow _____ Mcfd @ 15.025 Angle of Slope: θ _____ 59° Slope, n _____ .60				
Remarks: _____				
Approved By Commission: _____ Conducted By: _____ Calculated By: <i>UB</i> Checked By: _____				

Mesa Petroleum Co.
 Davis #1
 Sec 12, T7S, R25E
 Chaves County, New Mexico
 5-18-81



$$n = 1/\text{slope} = \text{Log } Q_2 - \text{Log } Q_1 = \text{Log } 4600 - \text{Log } 1150 = 3.66 - 3.06 = .60$$

$$\theta = 59.0^\circ$$