

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 12-7-81		JAN 6 1982	
Company Mesa Petroleum Co.				Connection Unconnected		O.C.D.	
Pool Pecos Slope - Abo Gas Undesignated ABO				Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 12-7-81		Total Depth 4100		Plug Back TD 4034'		Elevation 3858'	
Csg. Size 4 1/2		Wt. 10.5#		Set At 4090'		Perforations: From 3640 To 3974	
Thq. Size 2 3/8		Wt. 4.7#		Set At 3550'		Perforations: From open ended To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At None		County Chaves	
Producing Thru tubing		Reservoir Temp. °F 102 @ 4100'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		Gg .65		% CO ₂ 1	
				% N ₂ 1		% H ₂ S	
				Prover		Meter Run	
				Taps		2" ORIFICE WELL TESTER	

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							915		870		48 hr SI
1.	2" ORIFICE	1 1/4		14		38	810	64	785		1 hr
2.	WELL	1 1/4		29		48	690	68	670		1 hr
3.	TESTER	1 1/4		42		56	500	74	518		1 hr
4.		1 1/4		43		58	380	76	440		1 hr
5.											

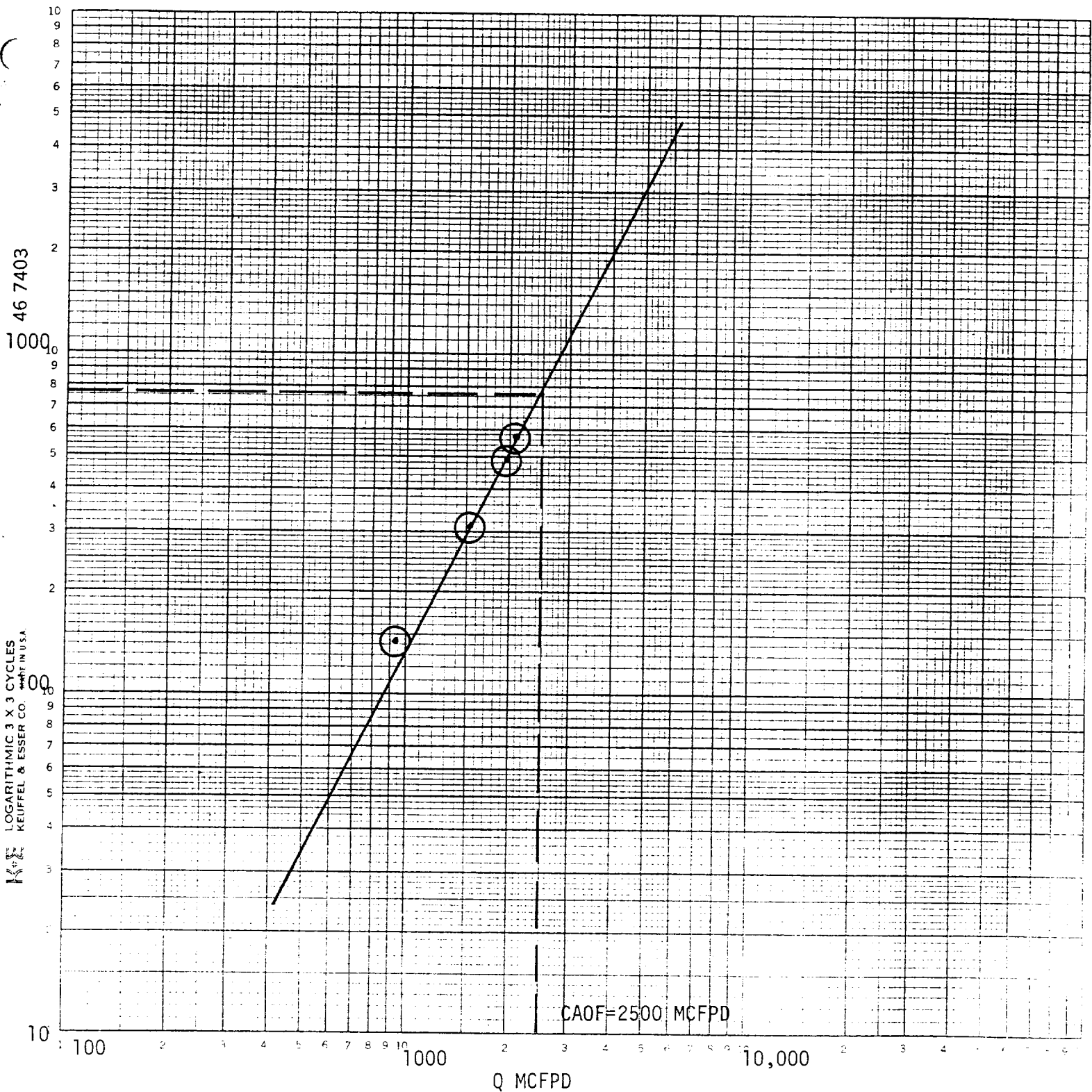
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	924	2" ORIFICE WELL		1.0219	.9608		944
2.	1578	TESTER		1.0117	.9608		1533
3.	2065			1.0039	.9608		1992
4.	2093			1.0019	.9608		2015
5.							

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

F _c 883	P _c ² 780	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5662$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2628$
NO.	P _w	P _w ²	P _c ² - P _w ²
1	798	637	143
2	683	466	314
3	531	282	498
4	453	205	575
5			

Absolute Open Flow 2500 Mcfd @ 15.025		Angle of Slope @ 62.5°	Slope, n .52
Remarks:			
Approved By Commission: _____			
Conducted By: James Craig		Calculated By: E.L. Buttross, Jr.	Checked By:

Mesa Petroleum Co.
 Coyote Federal No. 6
 Chaves Co., NM
 12-7-81



$$N=1/\text{slope}=\frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{Cycle}} = \frac{\text{Log } 2800 - \text{Log } 860}{\text{Cycle}} = \frac{3.45 - 2.93}{\text{Cycle}} = .52$$

$$\theta = 62.5^\circ$$