

N. 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 9-5-82		SEP 29 1982	
Company Mesa Petroleum Company					Connection unconnected		O. C. D.	
Pool <u>Undesignated</u> Pecos Slope ABO					Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 9-5-82		Total Depth 3050'		Plug Back TD 2908'		Elevation 3858'		Perm. or Lease Name Debbie Federal
Csq. Size 4 1/2	Wt. 10.5#	Set At 2947'	Perforations: From 2789' To 2818'		Well No. 8			
Tq. Size 2-3/8	Wt. 4.7#	Set At 2806'	Perforations: From open ended To		Unit Sec. Twp. Rge. I 29 7S 23E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single					Packer Set At none		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 104@ 3050	Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L	H	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" Critical Flow Prover		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							755		750		48 hr. S
1.	2" x 1"			21		40	730	74	740		1 hr.
2.	2" x 1"			70		50	620	80	695		1 hr.
3.	2" x 1"			95		58	480	85	580		1 hr.
4.	2" x 1"			109		60	380	86	500		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	17.09	Flow Prover	34	1.020	1.24		734
2	17.09	" "	83	1.010	1.24		1776
3	17.09	" "	108	1.002	1.24		2293
4	17.09	" "	122	1.000	1.24		2585
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

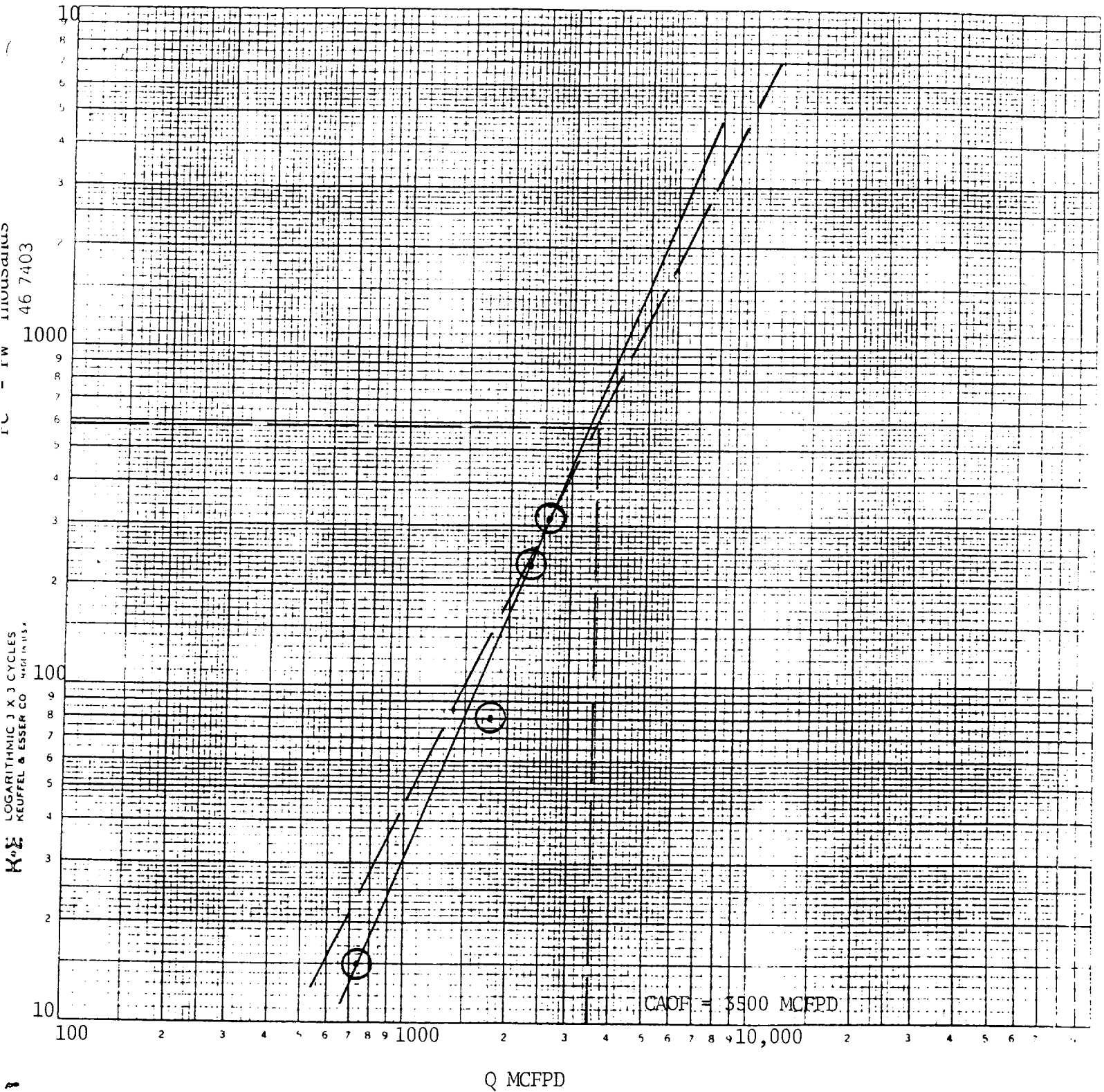
P _c 763	P _w 582	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8244$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3507$
NO.	P _w	P _c	P _c ² - P _w ²
1	753	567	15
2	708	501	81
3	593	352	230
4	513	263	319
5			

Absolute Open Flow 3500		Mcf @ 15.025	Angle of Slope @ 63.5°	Slope, n .5
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Remarks: Plot of P_c² - P_w² vs. Q yielded a straight line with A θ greater than 63.5°. Drew 63.5° line through highest point.

Approved By Commission:	Conducted By: James Craig	Calculated By: E. L. Buttross, Jr.	Checked By:
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MESA PETROLEUM COMPANY
 Debbie Fed No. 8
 Chaves County, New Mexico
 9/5/82



Assumed $N = .5$ and $\theta = 63.5^\circ$