

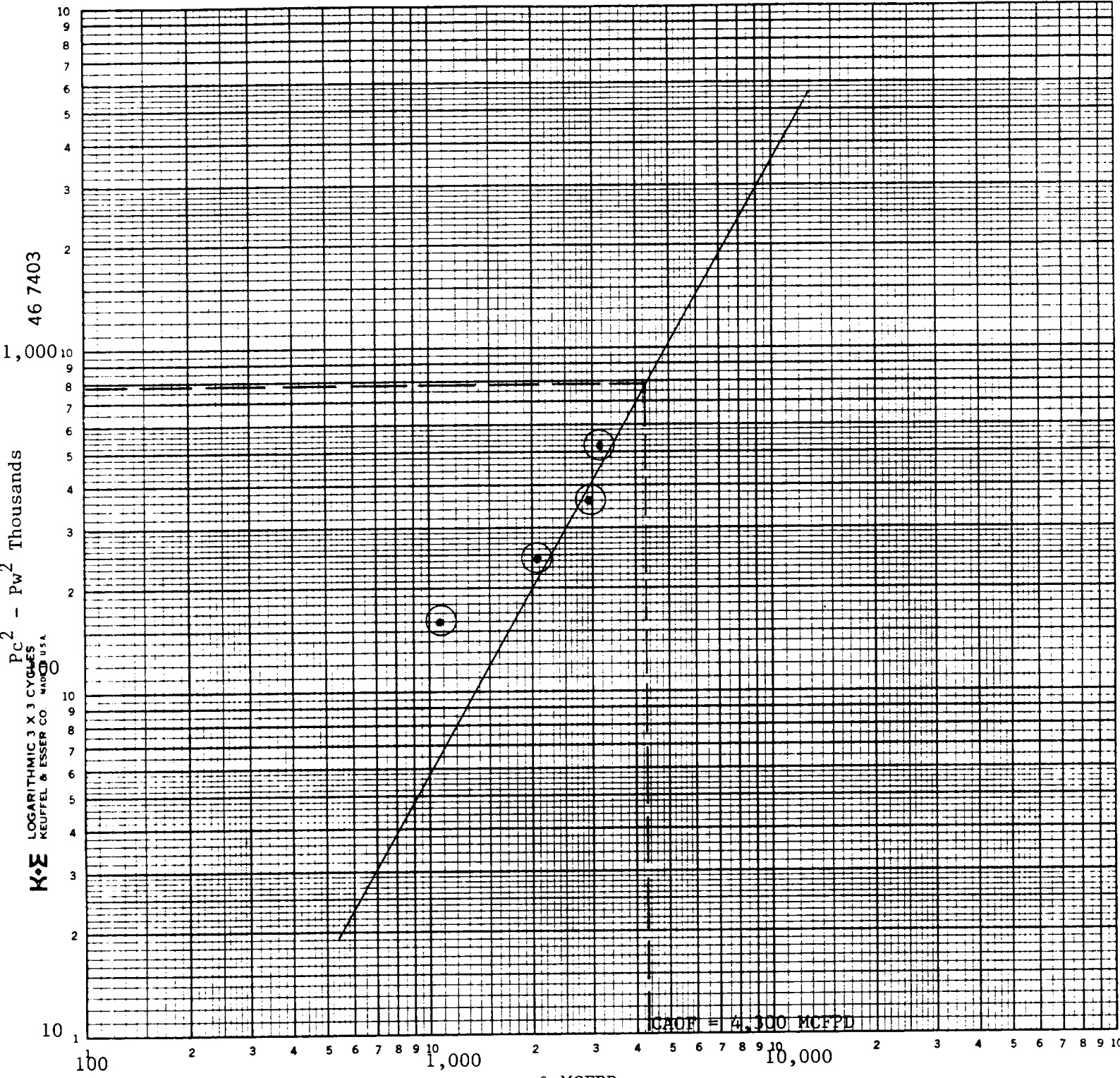
RECEIVED BY
Form C-122
Revised 10-1-78
JAN 09 1984
FOR GAS WELL
O.C.D.
ARTESIA OFFICE

c/sf
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 1-2-84									
Company MESA PETROLEUM CO. ✓		Connection UNCONNECTED									
Pool PECOS SLOPE ABO		Formation ABO									
Completion Date 12-30-83		Total Depth 3873	Plug Back TD 3830								
		Elevation 3797.4	Farm or Lease Name WESTERN COM								
Coq. Size 4 1/2	Wt. 10.5#	d 3872	Set At 3872								
Perforations: From 3662 To 3792		Well No. 2									
Thq. Size 2 3/8	Wt. 4.7#	d 3774	Set At 3774								
Perforations: From OPEN ENDED To		Unit Sec. Twp. Rge. K 30 6S 25E									
Type Well - Single - Brdenhead - G.C. or G.O. Multiple SINGLE		Packer Set At NONE									
Producing Thru TUBING		County CHAVES									
Reservoir Temp. °F 91 @ 3872		State NEW MEXICO									
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2									
L	H	G _g 6.5	% CO ₂ 1								
		% N ₂ 1	% H ₂ S								
Prover 2" CRITICAL FLOW PROVER		Meter Run Taps									
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							875		875		+72 hr SI
1.	2" x 1"			37		26	775	37	780		1 hr
2.	2" x 1"			80		33	705	36	727		1 hr
3.	2" x 1"			126		48	510	34	640		1 hr
4.	2" x 1"			130		50	360	35	500		1 hr
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Fl.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	17.09	FLOW PROVER	50	1.034	1.24		1095				
2.	"	"	93	1.027	1.24		2024				
3	"	"	139	1.012	1.24		2980				
4.	"	"	143	1.010	1.24		3060				
5.											
NO.	P _f	Temp. °F	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.					Specific Gravity Separator Gas _____ Y 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	888	P _c ²	788								
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²							
1		793	628	160							
2		740	547	241							
3		653	426	362							
4		513	263	525							
5											
Absolute Open Flow		4,300	Mcf/d @ 15.025	Angle of Slope	60.8°	Slope, n	.56				
Remarks:											
Approved By Division		Conducted By: JAMES CRAIG		Calculated By: E.L. BUTTROSS, JR.		Checked By:					

MESA PETROLEUM CO.
 WESTERN COM #2
 CHAVES COUNTY, NEW MEXICO
 1-2-84



$$N = 1/\text{Slope} = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{Cycle}} = \frac{\text{Log } 5000 - \text{Log } 1375}{\text{Cycle}} = 3.69 - 3.13 = .56$$

$$\theta = 60.8^\circ$$