NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
AUG 11 1982
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 7-27-82	
Company: MESA PETROLEUM CO.	Connection: UNCONNECTED			Unit
Pool: ~~PECOS SLOPE~~ ABO	Formation: ABO			
Completion Date: 7-27-82	Total Depth: 3100'	Plug Back TD: 3017'	Elevation: 3972'	Farm or Lease Name: MCKNIGHT COM
Csg. Size: 4 1/2" / Wt.: 10.5# / d: / Set At: 3100'	Perforations: From 2819' To 2927'			Well No.: 1
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: / Set At: 2914'	Perforations: From OPEN ENDED To			Unit: O / Sec.: 20 / Twp.: 7S / Rge.: 23E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE	Packer Set At: NONE			County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 106° @ 3100'	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_2S: / Prover: 2" CRITICAL FLOW PROVER	Meter Run: / Taps:

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					812		815		72 HRS S
1.	2" x 1"	35		44	750	85	775		1 HR
2.	2" x 1"	77		50	660	88	740		1 HR
3.	2" x 1"	96		54	550	89	650		1 HR
4.	2" x 1"	105		58	430	89	560		1 HR
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	17.09	FLOW PROVER	48	1.016	1.24		1033
2.	17.09	FLOW PROVER	90	1.010	1.24		1926
3.	17.09	FLOW PROVER	109	1.006	1.24		2324
4.	17.09	FLOW PROVER	118	1.002	1.24		2506
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 828 P_c^2 686

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		788	621	65
2		753	567	119
3		663	440	246
4		573	328	358
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9162$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3843$

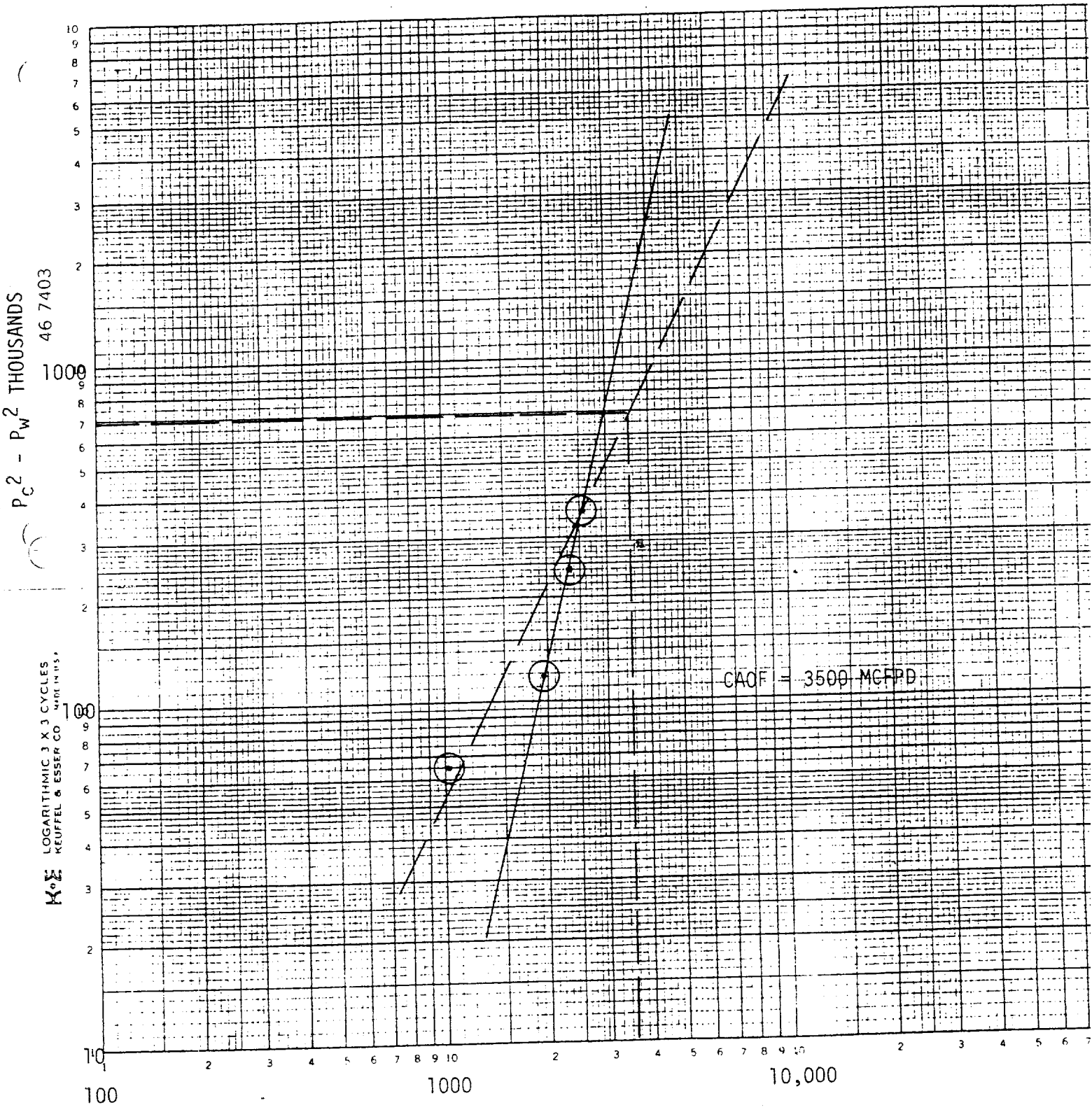
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.500$

Absolute Open Flow 3,500 Mcfd @ 15.025 Angle of Slope θ 63.5° Slope, n .5

Remarks: Plot of $P_c^2 - P_w^2$ 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:	Calculated By:	Checked By:
	JAMES CRAIG	EWB 8-4-82 E.L. BUTTROSS, JR	

MESA PETROLEUM CO.
MCKNIGHT COM NO 1
CHAVES CO., NM
7-27-82



ASSUMED N = .5 AND θ = 63.5°