NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT / ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

C/SF
C-122

RECEIVED
APR 19 1982
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 4-4-82

Company: MESA PETROLEUM CO.
Connection: UNCONNECTED
Unit:
Pool: ~~UNDESIGNATED~~ Pecos Slope ABO
Formation: ABO
Completion Date: 4-4-82
Total Depth: 4295'
Plug Back TD: 4226'
Elevation: 3582'
Farm or Lease Name: CHARLOTTE FEDERAL
Well No.: 2
Unit: M
Sec.: 17
Twp.: 7S
Rge.: 26E
Csg. Size: 4½" Wt.: 10.5# d: Set At: 4294' Perforations: From 3690' To 3929'
Tbg. Size: 2 3/8" Wt.: 4.7# d: Set At: 3590' 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 @ 4295'
Mean Annual Temp. °F: 60
Baro. Press. – P_a: 13.2
State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.65	1	1		2" ORIFICE WELL TESTER		

	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					840		786		72 hrs SI
1.	2" ORIFICE	6		65	795	71	750		1 hr
2.	WELL	15.5		72	725	76	695		1 hr
3.	TESTER	22		73	505	79	615		1 hr
4.		26		76	400	80	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	561	2" ORIFICE WELL		.9952	.9608		536
2	984	TESTER		.9887	.9608		935
3	1337			.9877	.9608		1269
4	1485			.9850	.9608		1405
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 799 P_c^2 638

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		763	582	56
2		708	501	137
3		628	394	244
4		573	328	310
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.6148$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.6326$

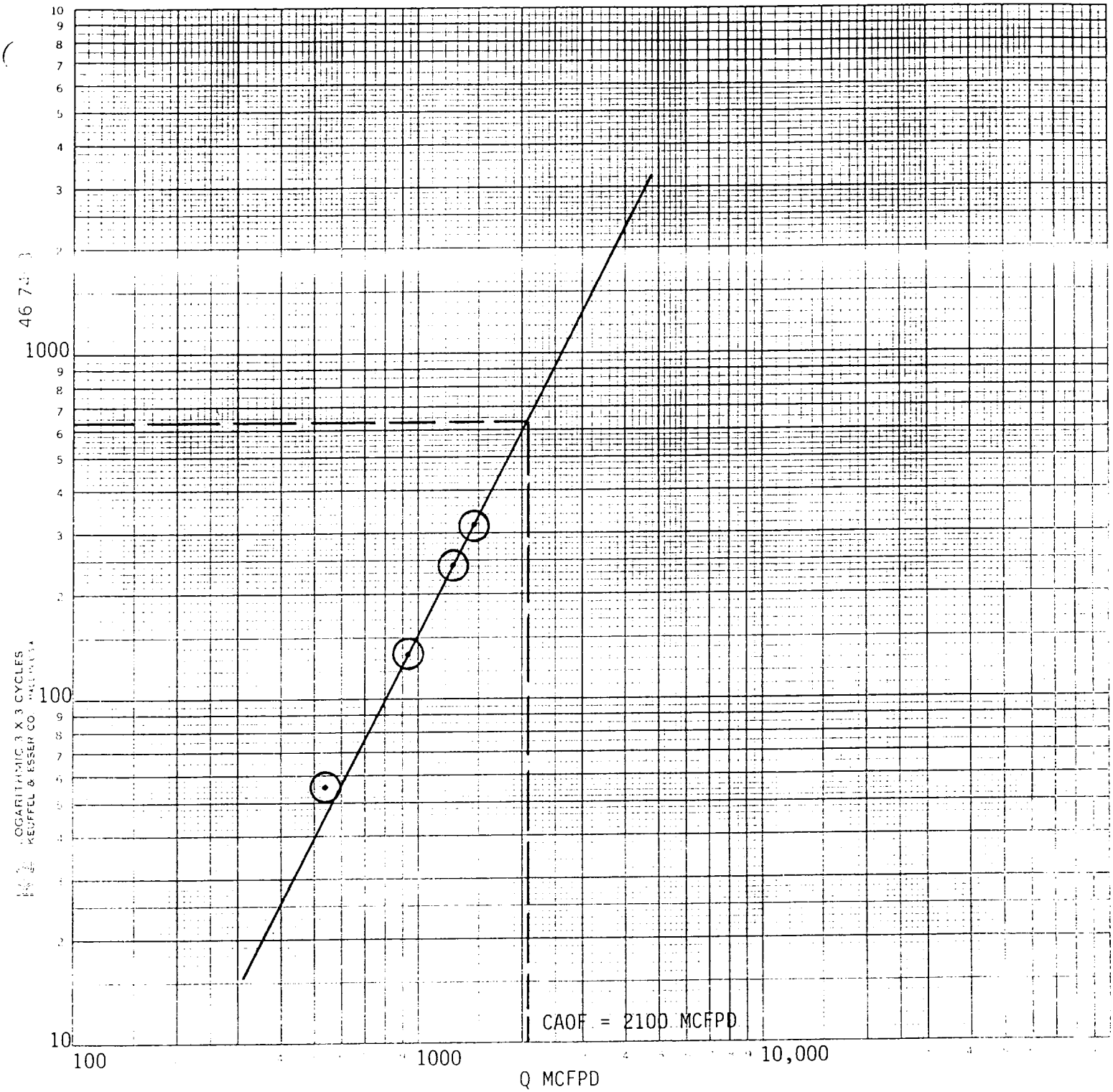
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2,100$

Absolute Open Flow 2,100 Mcfd @ 15.025 Angle of Slope θ 63° Slope, n .51

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	JAMES CRAIG	E.L. BUTTROSS, JR. 4-8-82	

MESA PETROLEUM COMPANY
CHARLOTTE FEDERAL NO.2
CHAVES CO., NEW MEXICO
4-4-82



$$N = 1/SLOPE = \frac{LOG\ Q_2 - LOG\ Q_1}{CYCLE} = \frac{LOG\ 2600 - LOG\ 800}{CYCLE} = 3.41 - 2.90 = .51$$

$$\theta = 63°$$