NEW XICO OIL CONSERVATION COMMSSI

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JAN 6 1982
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 11-25-81	
Company: Mesa Petroleum Co.	Connection: Unconnected			
Pool: ~~Undesignated ABO~~ Pecos Slope-Abo Gas	Formation: ABO		Unit:	
Completion Date: 11-25-81	Total Depth: 4300	Plug Back TD: 4113	Elevation: 3770	Farm or Lease Name: Cottonwood Federal
Csg. Size: 4 1/2 / Wt.: 10.5# / d: / Set At: 4172		Perforations: From 3723 To 3990.5		Well No.: 2
Tbg. Size: 2 3/8 / Wt.: 4.7# / d: / Set At: 3619		Perforations: From open ended To		Unit: H / Sec.: 26 / Twp.: 6S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: single		Packer Set At: none		County: Chaves
Producing Thru: tubing	Reservoir Temp. °F: 100 @ 4300	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico
L: 3619 / H: 3619	Gg: .65	% CO_2: 1	% N_2: 1	% H_2S:
Prover: 2" ORIFICE WELL TESTER	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	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							970		925		72 hr SI
1.	2" ORIFICE	1	1/4	7		20	870	42	855		1 "
2.	WELL	1	1/4	16		20	720	58	738		1 "
3.	TESTER	1	1/4	23		38	570	64	620		1 "
4.		1	1/4	26		50	440	70	520		1 "
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	612	2" ORIFICE WELL		1.0409	.9608		612
2.	1004	TESTER		1.0408	.9608		1004
3.	1348			1.0219	.9608		1324
4.	1463			1.0098	.9608		1419
5.							

NO.	P_r	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 _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 938 P_c^2 880

NO	P_t	P_w	P_w^2	$P_c^2 - P_w^2$
1		868	753	127
2		751	564	316
3		633	401	479
4		533	284	596
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8372$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4144$

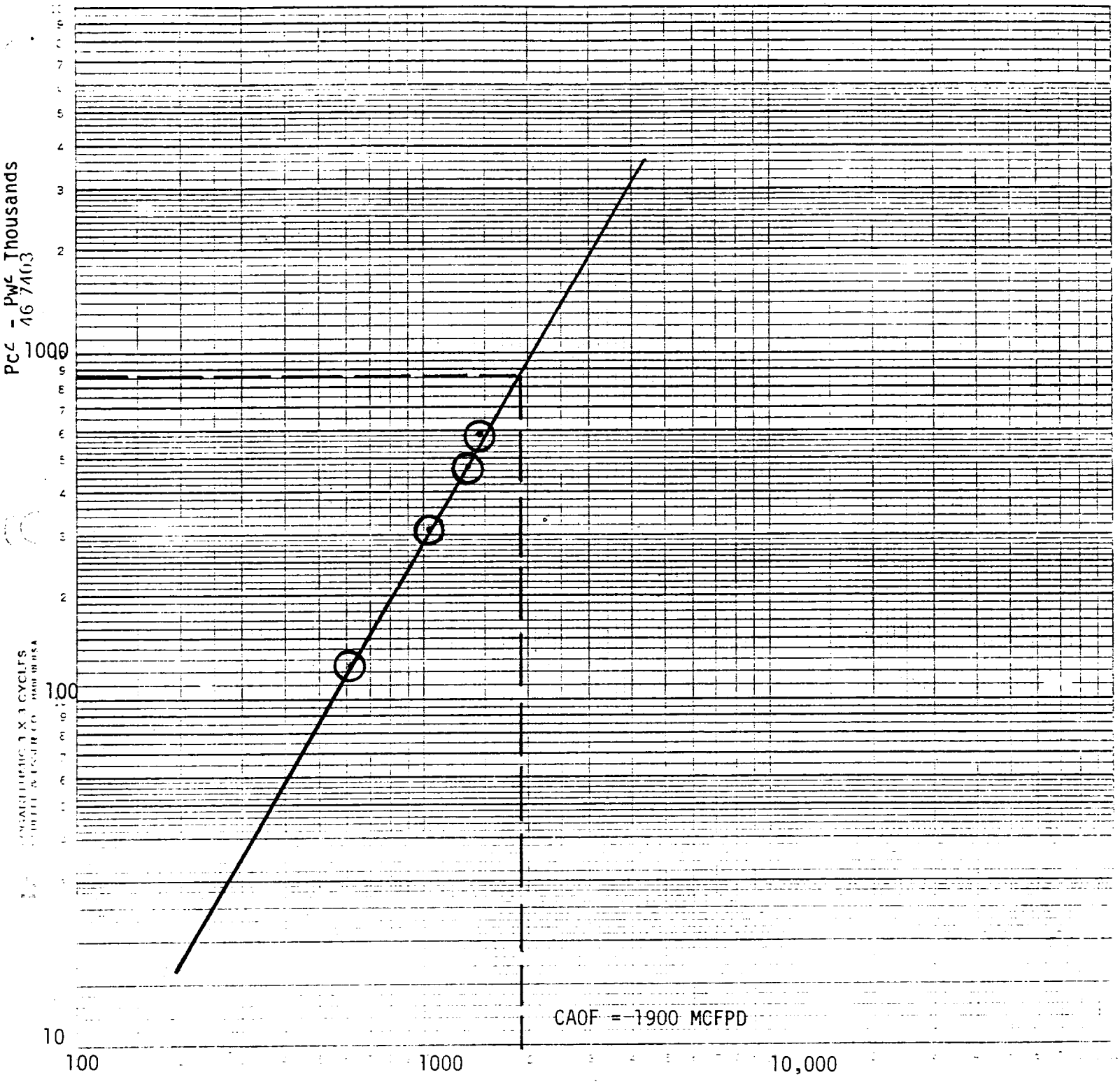
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1900$

Absolute Open Flow 1900 Mcfd @ 15.025 Angle of Slope θ 60.3° Slope, n .57

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	James Craig	E. L. Buttross, Jr.	

Mesa Petroleum Co.
Cottonwood Federal No. 2
Sec 26, T6S, R25E
Chaves Co., NM



$$N = 1/\text{slope} = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{Cycle}} = \frac{\text{Log } 2050 - \text{Log } 550}{\text{Cycle}} = \frac{3.31 - 2.74}{\text{Cycle}} = .57$$

$\theta = 60.3°$