NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
AUG 5 1981
OIL & GAS
GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: R7-8-81		
Company: MESA PETROLEUM CO.	Connection: UNCONNECTED				Unit:
Pool: ~~UNDESIGNATED~~ ABO	Formation: ABO				
Completion Date: 7-8-81	Total Depth: 3776		Plug Back TD: 3745	Elevation: 3590	Farm or Lease Name: MELENA FEDERAL
Csg. Size: 4 ½ / Wt.: 10.5 / d: / Set At: 3775			Perforations: From 3368 To 3390		Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 3320			Perforations: From OPEN ENDED To		Unit: C / Sec.: 15 / Twp.: 9S / Rge.: 24E
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: SINGLE			Packer Set At: NONE		County: Chaves
Producing Thru: TUBING	Reservoir Temp. °F: 95° @ 3776		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO
L: 3320	H: 3320	Gg: .65	% CO_2: 1	% N_2: 3	% 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	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						720		910		+72 hr. SI
1.	2" ORIFICE	1/2	2	-	80	100	80	100		1 hr.
2.	WELL						-			
3.	TESTER									
4.						-				
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	43	2" ORIFICE WELL TESTER		.9813	.9608	-	41
2.							
3.							
4.							
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 _____ XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

P_c 910 P_c^2 828

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		100	10	818
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0122$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0122$

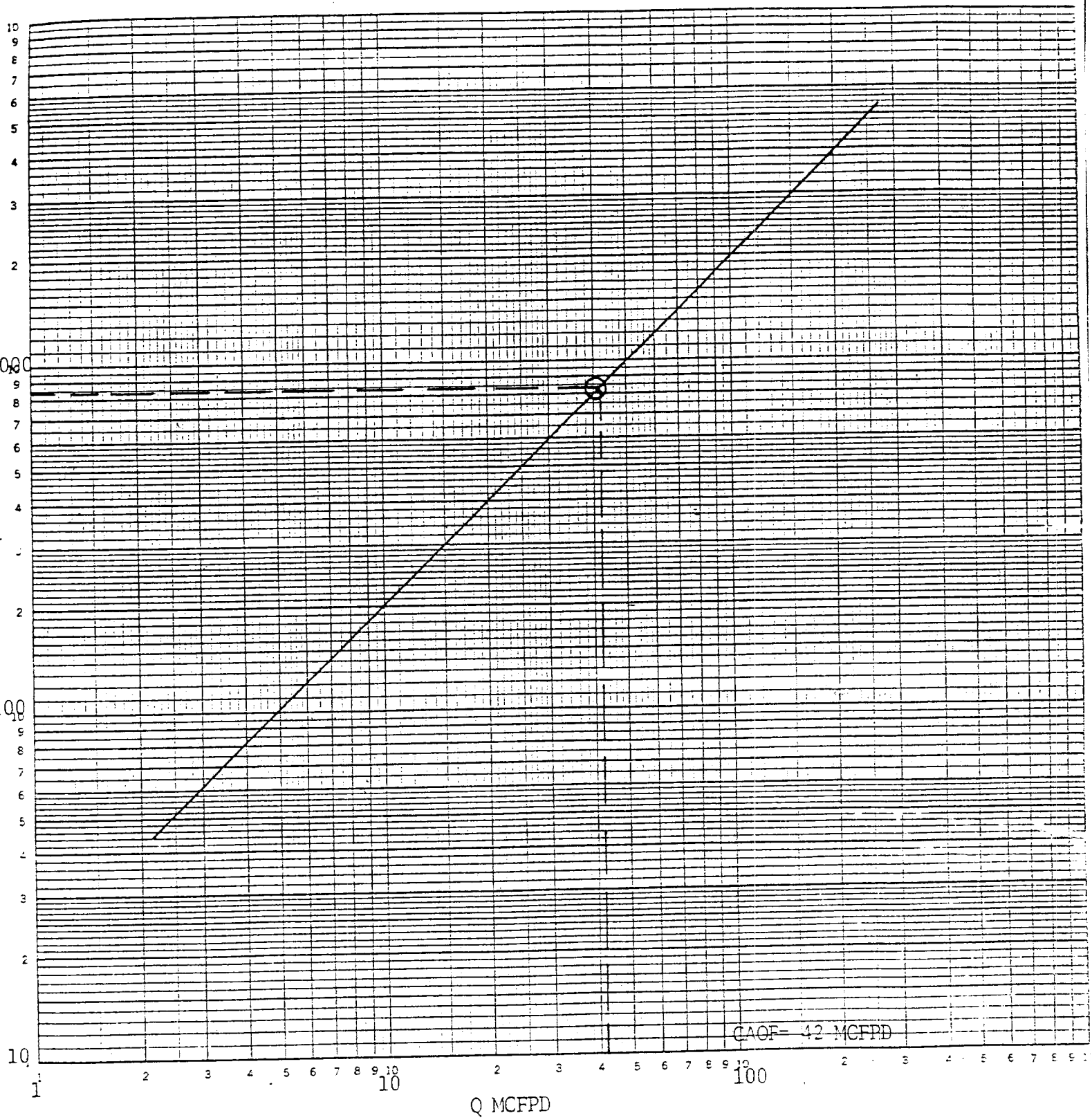
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 42$

Absolute Open Flow 42 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1

Remarks: Unable to run four flow rates due to low delivery of well. Assumed n=1 and based calculations on one point test.

Approved By Commission: Conducted By: Calculated By: EBS Checked By:

MESA PETROLEUM CO.
ELENA FEDERAL NO. 1
SEC. 15, T9S, R24E
CHAVES COUNTY, NEW MEXICO
7-8-81



ASSUMED n=1 + θ = 45°