NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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O. C. D.
ARTESIA, OFFICE

File

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 8-25-82	
Company: Mesa Petroleum Co.		Connection: Unconnected			
Pool: ~~Pecos Slope~~ ABO		Formation: ABO		Unit	
Completion Date: 8-25-82	Total Depth: 3075'	Plug Back TD: 3020'	Elevation: 3896'	Farm or Lease Name: Iris State	
Csg. Size: 4 1/2 / Wt.: 10.5# / d / Set At: 3075'		Perforations: From 2739 To 2866		Well No.: 2	
Tbg. Size: 2 3/8 / Wt.: 4.7# / d / Set At: 2870'		Perforations: From Open ended To		Unit: K / Sec.: 21 / 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: 96 @ 3060	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					745		742		hr SI
1.	2" X 1"	28		48	630	74	645		1 hr.
2.	2" X 1"	45		53	495	75	525		1 hr.
3.	2" X 1"	46		60	360	77	410		1 hr.
4.	2" X 1"	49		64	260	78	320		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	41	1.012	1.24		879
2.	17.09	Flow prover	58	1.007	1.24		1238
3.	17.09	Flow prover	59	1.000	1.24		1250
4.	17.09	Flow prover	62	.9962	1.24		1309
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 755 P_c^2 570

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		658	433	137
2		538	289	281
3		423	179	391
4		333	111	459
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2418$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1144$

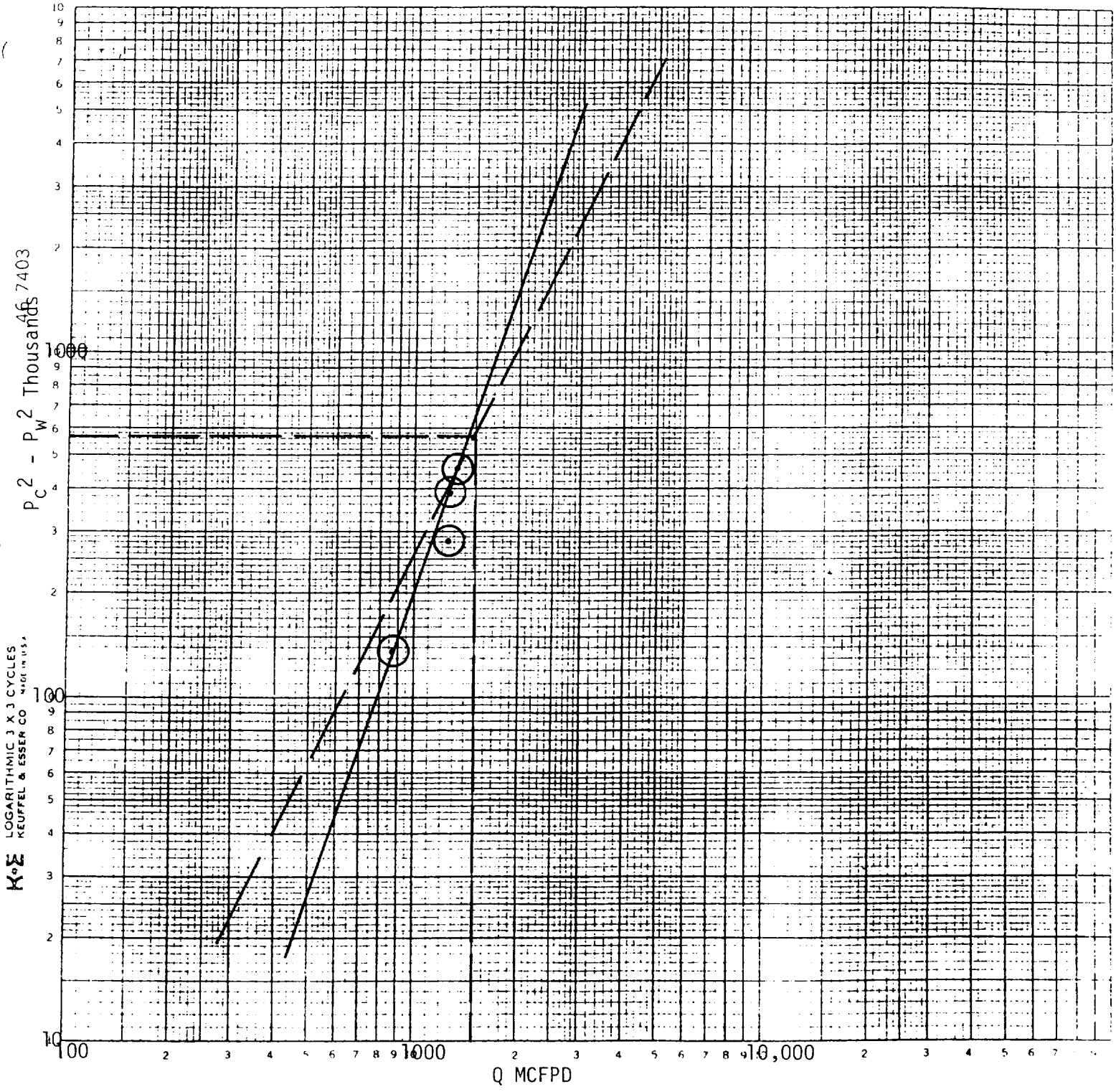
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1,500$

Absolute Open Flow 1,500 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	E. L. Buttross, Jr.	

Mesa Petroleum Co.
Iris State No. 2
Chaves Co., NM
8-25-82



Assumed N = .5 and θ - 63.5°