gsr File

NE MEXICO OIL CONSERVATION COMM ON

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
SEP 29 1982
O. C. D.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 8-16-82	
Company: MESA PETROLEUM CO.	Connection: UNCONNECTED			Unit:
Pool: PECOS SLOPE ABO	Formation: ABO			
Completion Date: 8-16-82	Total Depth: 3231'	Plug Back TD: 2975'	Elevation: 3946'	Farm or Lease Name: DEBBIE FEDERAL
Csg. Size: 4 1/2" / Wt.: 10.5# / d: / Set At: 3026'		Perforations: From 2780' To 2912'		Well No.: 6
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: / Set At: 2858'		Perforations: From OPEN ENDED To		Unit: A / Sec.: 29 / 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: 92° @ 3200'	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" CRITICAL FLOW PROVER		

	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						800		800		72 HRS SI
1.	2"	x 1"	28		46	770	83	775		1 HR
2.	2"	x 1"	65		48	700	86	745		1 HR
3.	2"	x 1"	96		54	580	88	650		1 HR
4.	2"	x 1"	105		56	460	89	575		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	1.014	1.24		881
2.	17.09	FLOW PROVER	78	1.012	1.24		1673
3.	17.09	FLOW PROVER	109	1.006	1.24		2324
4.	17.09	FLOW PROVER	118	1.004	1.24		2510
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 813 P_c^2 661

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		788	621	40
2		758	575	86
3		663	440	221
4		588	346	315
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 2.0984 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.4486

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 3,600

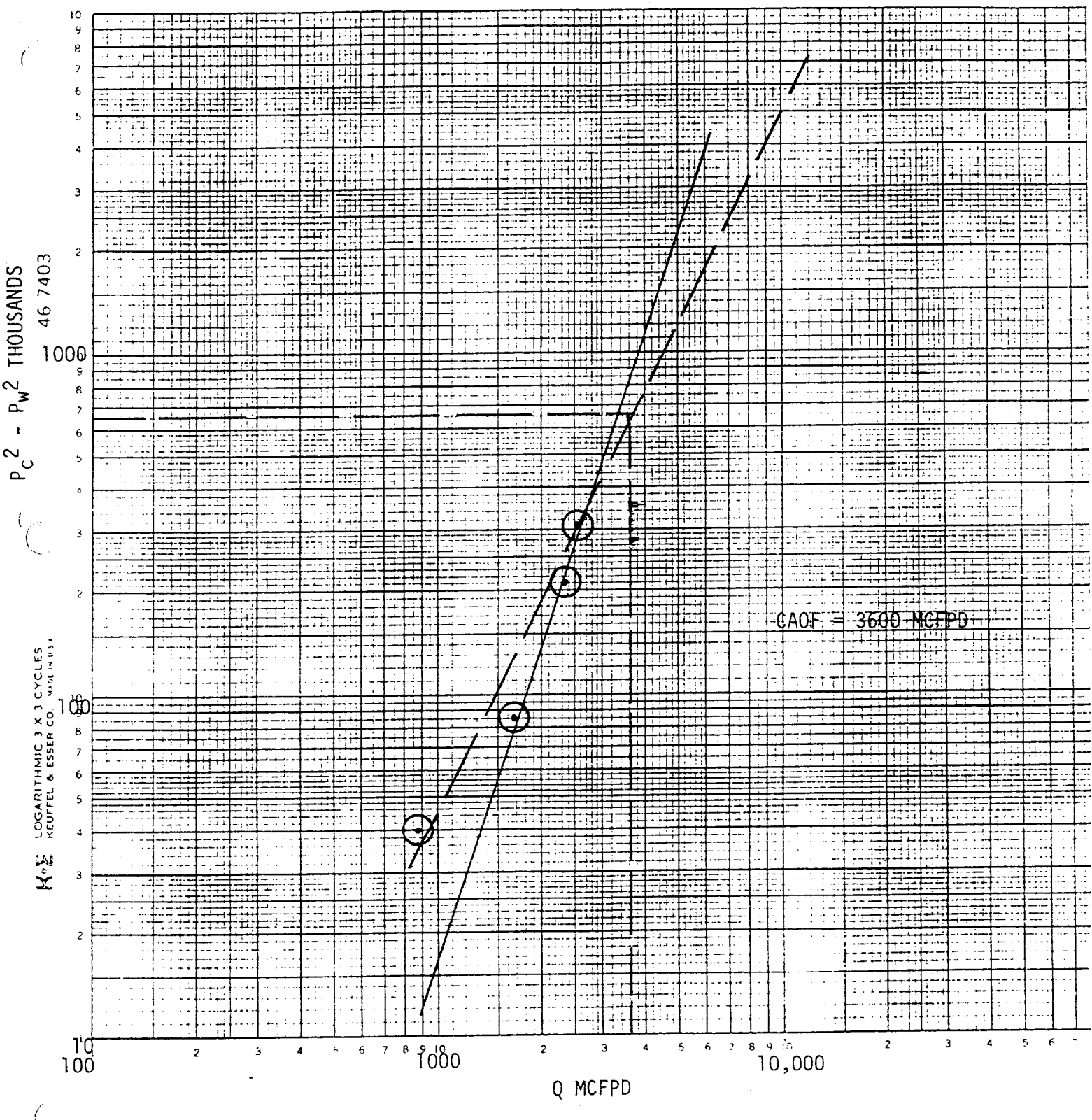
Post FD-2
10-1-82
Comp + BR

Absolute Open Flow 3,600 Mcfd @ 15.025 Angle of Slope θ 63.5° Slope, n .5

Remarks: Plot of $Pc^2 - Pw^2$ vs Q yield 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 8-19-82	

MESA PETROLEUM CO.
DEBBIE FEDERAL NO. 6
CHAVES CO., NM



ASSUMED N = .5 AND θ = 63.5°