

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

RECEIVED

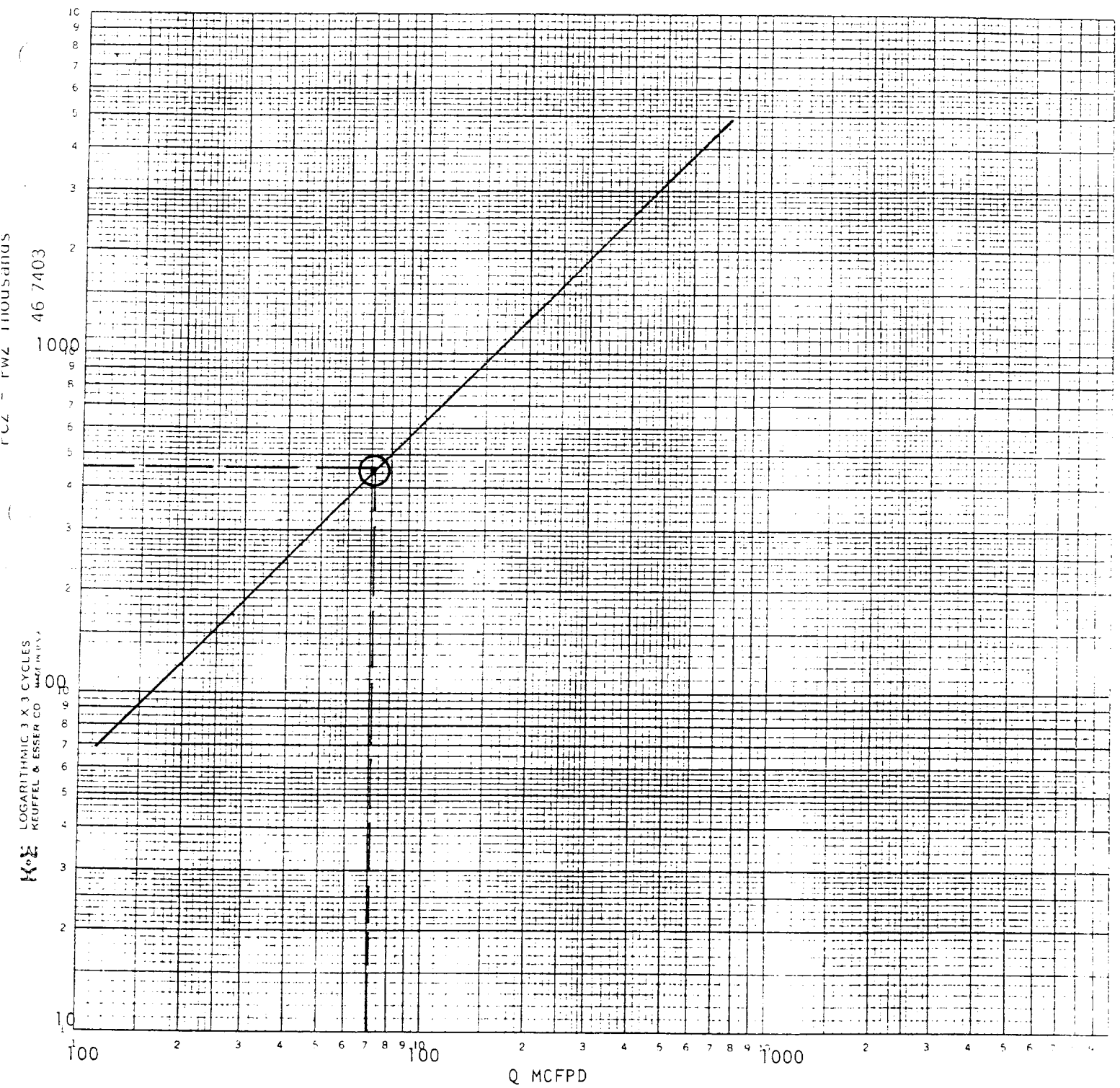
Form C-122
Revised 9-1-65

OCT 22 1982

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 8-23-82		ARTESIA OFFICE	
Company MESA PETROLEUM CO.			Connection UNCONNECTED		
Pool PEGOS-SLOPE ABO			Formation ABO		Unit
Completion Date 8-23-82		Total Depth 3126'		Plug Back TD 3075'	
Elevation 4205'		Farm or Lease Name CAROL FEDERAL			
Csq. Size 4 1/2"	Wt. 10.5#	d 3120'	Set At 2928'	Perforations From 2928' To 3023'	
Trq. Size 2 3/8"	Wt. 4.7#	d 2811'	Set At OPEN ENDED	Well No. 2	
Type well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE				Packor Set At NONE	
Producing Thru TUBING		Reservoir Temp. °F 93° @ 3100'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State NEW MEXICO			
L	H	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S
Prover 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
1.	2" ORIFICE	1/2"	5.5	85	15
2.	WELL				95
3.	TESTER				25
4.					
5.					
RATE OF FLOW CALCULATIONS					
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g
1.	76	2" ORIFICE		.9768	.9608
2.		WELL TESTER			
3.					
4.					
5.					
NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio
1.					A.P.I. Gravity of Liquid Hydrocarbons
2.					Specific Gravity Separator Gas
3.					Specific Gravity Flowing Fluid
4.					Critical Pressure
5.					Critical Temperature
$P_c = 678$ $P_c^2 = 460$					
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0021$
1.		38	1	459	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0021$
2.					
3.					
4.					
5.					
Absolute Open Flow <u>71</u> Mld @ 15.025 Angle of Slope <u>45°</u> Slope, n <u>1</u>					
Remarks: <u>UNABLE TO RUN FOUR FLOW RATES DUE TO LOW DELIVERY OF WELL. ASSUMED</u> <u>N=1 AND BASED CALCULATIONS ON ONE POINT TEST.</u>					
Approved By Commission:		Conducted By: JAMES CRAIG		Calculated By: E.L. BUTTROSS, JR	
Checked By:					

Post ID-2
10-25-82
Camp & BK

Mesa Petroleum Co.
Carol Fed #2
Chaves Co., NM
8-23-82



Assumed $N=1$ and $\theta=45^\circ$