

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

Form C-122
 Revised 9-1-65

ckf File

OCT 29 '87

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-18-87	
Company HARVARD PETROLEUM			Connection TO AIR		
Pool PECOS SLOPE ABO			Formation ABO		
Completion Date		Total Depth 3500		Plug Back To 3500	
Elevation 4063		Form. or Lease Name QUESO ST.			
Csg. Size 2.375	Wt. 4.7	ID 1.995	Set At 3205	Perforations: From 2971 To 3205	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE				Packoff Set At NONE	
Producing Thru TUBING		Reservoir Temp. °F 108 3088		Mean Annual Temp. °F 60	
L 3088		H 3088		Gg 0.608	
% CO ₂ .072		% N ₂ 5.787		% H ₂ S 0	
Prover 2.000		Meter Run 0		Turns 0	
State NEW MEXICO					
County CHAVES					

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
51						70	900	70	898	70	72 HRS.
1.	2.000	.0625		855	0.00	72	855	72	892	72	60 MIN.
2.	2.000	.09375		840	0.00	72	840	72	888	72	60 MIN.
3.	2.000	.1250		825	0.00	72	825	72	873	72	60 MIN.
4.	2.000	.250		760	0.00	72	760	72	805	72	60 MIN.
5.	2.000	.3125		680	0.00	72	688	72	740	72	60 MIN.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compens. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	.06405	0.00	868.2	.9887	1.282	1.063	75
2	.1410	0.00	853.2	.9887	1.282	1.062	162
3	.2648	0.00	838.2	.9887	1.282	1.061	298
4	1.087	0.00	773.2	.9887	1.282	1.056	1125
5	1.672	0.00	693.2	.9887	1.282	1.051	1544

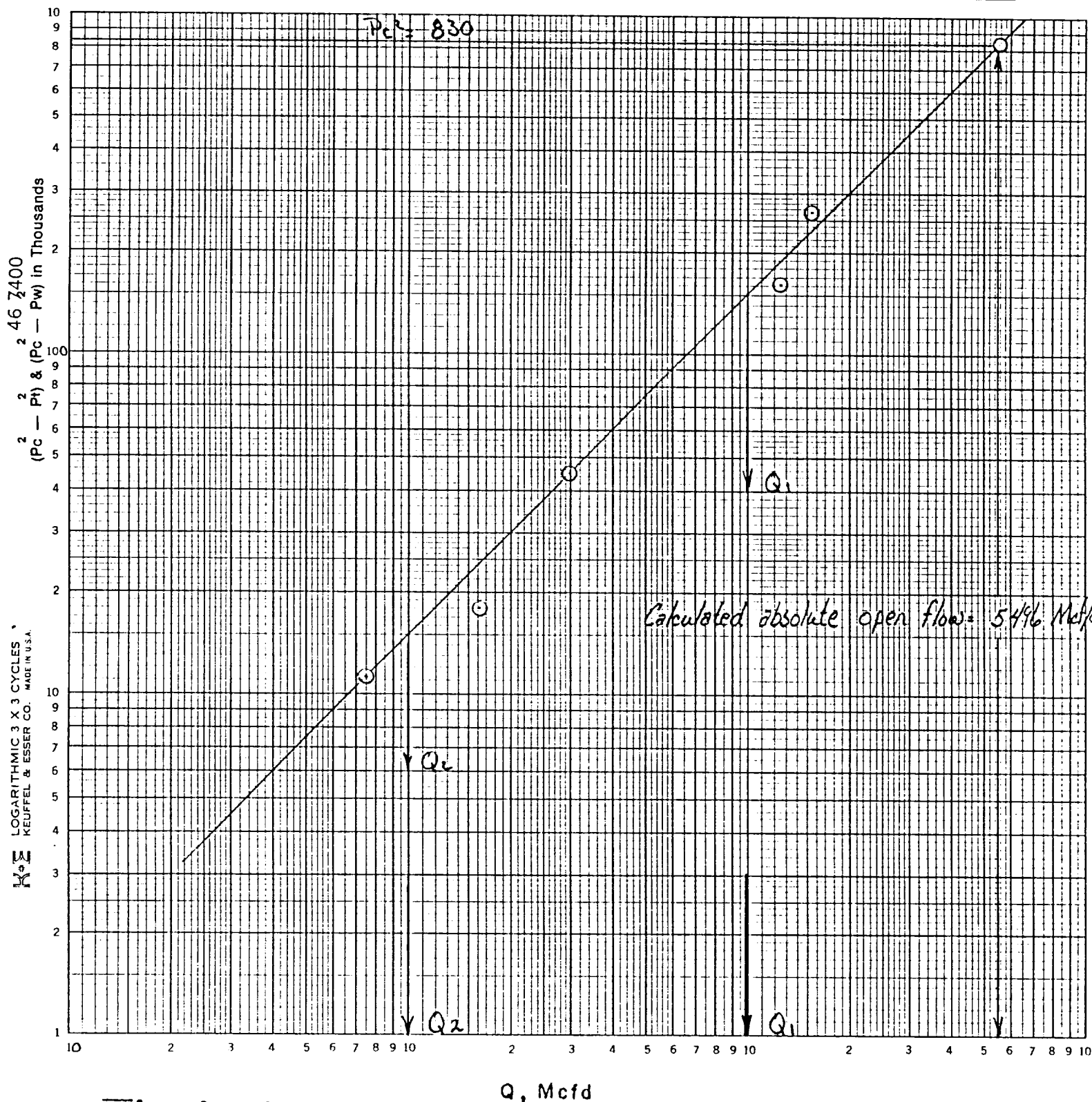
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.31	532	1.54	.885	0	0	0.608	XXXXXX	660	345
2.	1.29	532	1.54	.887				XXXXXX		
3.	1.27	532	1.54	.888						
4.	1.17	532	1.54	.897						
5.	1.05	532	1.54	.906						

NO.	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1	754	905.2	819	11	18.4444
2	728	901.2	812	18	18.4444
3	703	886.2	785	45	18.4444
4	598	818.2	669	161	18.4444
5	481	753.2	567	263	18.4444

Absolute Open Flow <u>5496</u> Mcfd @ 15.025		Angle of Slope <u>0</u>		Slope, n <u>0</u>	
Remarks:					
Approved By Commission:		Conducted By:		Calculated By:	
Checked By:		Checked By:		Checked By:	

BENNETT & CAINET PRODUCTION TESTING BACK PRESSURE CURVE

Operator Harvard Petroleum Lease Queso St Well No. 3
 County Chaves Field Pecos Slope Location _____
 Date of Test 6-18-84 Slope "n" 1.000 Angle of Slope 45°
 Calc. Abs. Potential 5496 MCF/D



$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = 150$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = 15$$

$$Q_1 = 1000$$

$$Q_2 = 100$$

$$\text{LOG } Q_1 = 3.0000$$

$$\text{LOG } Q_2 = 2.0000$$

$$n = 1.0000$$