

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3/16/73	
Company Pubco Petroleum Corporation				Connection None			
Pool Undesignated				Formation Morrow (Pennsylvanian)		Unit --	
Completion Date 3/16/73		Total Depth 13,200		Plug Back TD 11,990		Elevation 3987 KB	
Csg. Size 5-1/2		Wt. 17#		Set At 12,150		Perforations: From 11,864 To 11,884	
Tbg. Size 2-7/8		Wt. 6.5#		Set At 11,787		Perforations: From None To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple: Morrow Gas, Wolfcamp Oil						Packer Set At 11,787	
Producing Thru 2-7/8" EUE		Reservoir Temp. °F 160 @ 11,874		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 11,787		H 11,787		G _g 0.723		% CO ₂ 0	
				% N ₂ 2.47		% H ₂ S 0	
				Prover -		Meter Run 3"	
						Taps flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							2895.0				64.50 hr.
1.		0.75		700	20	70	2605.0	60	pkc.		1 hr.
2.		0.75		700	33	70	2605.0	60			1 hr.
3.		0.75		700	44	70	2595.0	60			1 hr.
4.		0.75		700	74	70	2445.0	60			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.695	119.4	713.2	0.9905	1.176	1.083	405.9
2	2.695	153.4	713.2	0.9905	1.176	1.083	439.2
3	2.695	177.1	713.2	0.9905	1.176	1.083	507.0
4	2.695	229.7	713.2	0.9905	1.176	1.083	657.6
5							

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
					10.96	52.3	0.723		664	391.5
1.	1.074	530	1.354	0.8535						
2.	1.074	530	1.354	0.8535						
3.	1.074	530	1.354	0.8535						
4.	1.074	530	1.354	0.8535						
5.										

NO.	P _r ²	P _{ws} ²	P _s ²	P _r ² - P _s ²
1	4416.2	19502.8		
2	4346.2	18889.5		
3	4206.2	17692.1		
4	4027.2	16218.3		
5				

(1) $\frac{P_r^2}{P_r^2 - P_s^2} = 3.126$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_s^2} \right]^n = 1989$

(2) $\left[\frac{P_r^2}{P_r^2 - P_s^2} \right]^n = 3.024$

Absolute Open Flow	1989	Mcfd @ 15.025	Angle of Slope	45.84°	Slope, n	0.9710
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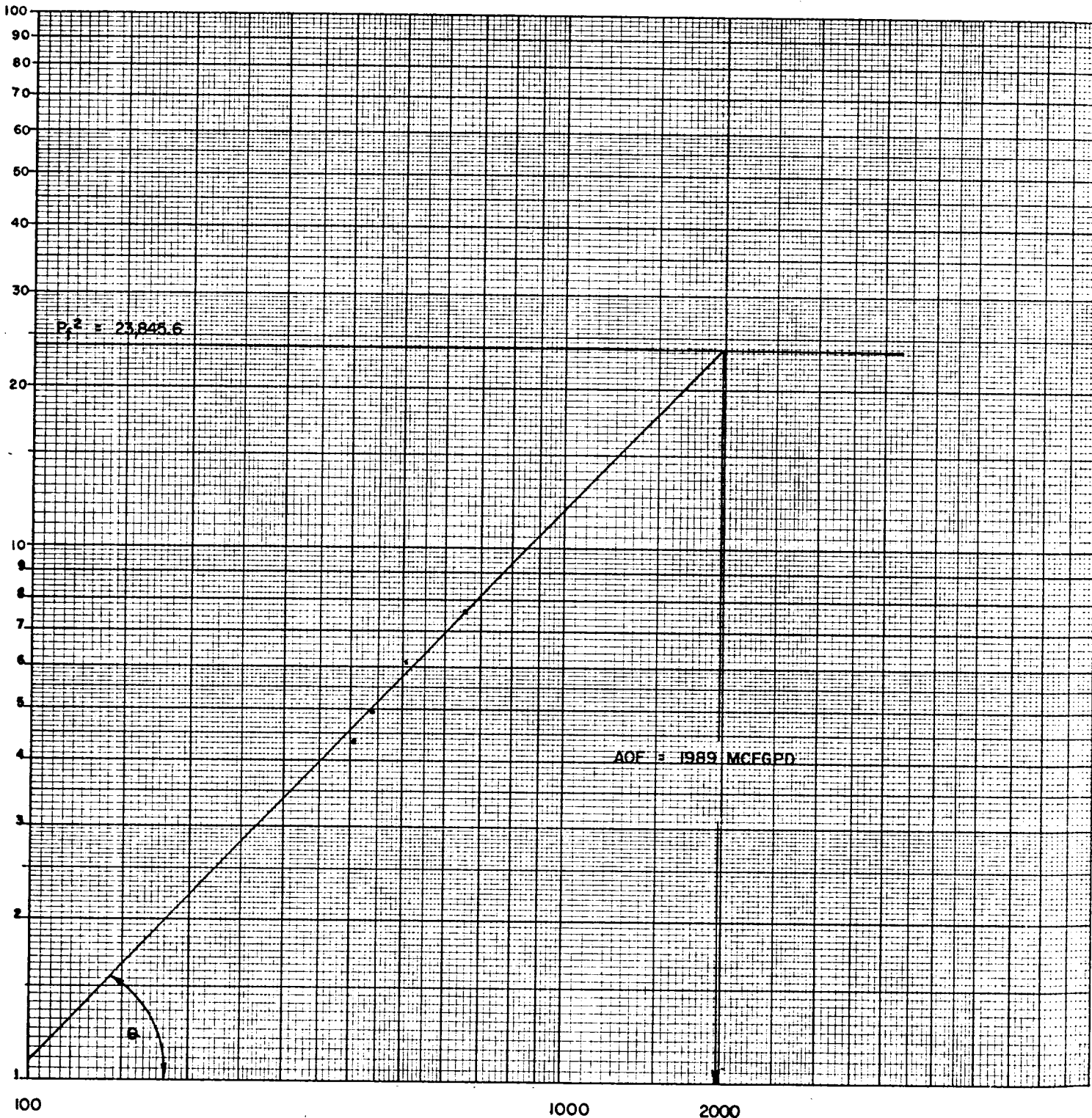
Remarks: All calculations based on measured bottom hole pressures at 11,874, mid-point of Morrow perforations.

Approved By Commission	Conducted By: J. Archer	Calculated By: Charles Sanders	Checked By:
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Charles Sanders
 Area Production Mgr.

COMPANY: PUBCO PETROLEUM CORPORATION
 WELL: Skelly State No.1
 COUNTY: Lea STATE: New Mexico
 LOCATION: T, 14 T16S R35E
 DATE: 3-16-73

K&E LOGARITHMIC 46 7203
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.



100

1000

2000

$\Delta P_1^2 = 11,700$
 $\Delta P_2^2 = 2230$
 $Q_1 = 1000$
 $Q_2 = 200$
 $N = 0.970952 = 0.971$
 $\theta = 45.84^\circ$