

**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 8-17-85	
Company POGO PRODUCING COMPANY			Connection LLANO STA 219		
Pool			Formation		Unit J
Completion Date		Total Depth 13600'	Plug Back To 13600'	Elevation 3743	Farm or Lease Name STATE L 922
Test Size 5.000	Wt. 18.0	d 4.276	Set At 13600	Perforations: From 12652 To 12682	
Test Size 2.785	Wt. 6.5	d 2.441	Set At 12600	Perforations: From 0 To 0	
Type Well - Single - Dradhead - G.G. or G.O. Multiple SINGLE			Factor Set At		County LEA
Producing thru TUBING		Reservoir Temp. °F 240 @ 12667	Mean Annual Temp. °F 60.0		State NEW MEXICO
L 12667	H 12657	Cg 0.691	% CO ₂ 0.07	% H ₂ 0.82	% H ₂ O 0
			Prover 0	Motor Run 3.1	Tap FLANGE

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow
NO.	Prover Line Size	X	Critical Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
51							3665	240	7334	
1.	3.07	X	0.750	435	4.0	95	2745	240	6419	5/64
2.	3.07	X	0.750	435	9.7	90	2359	240	5987	6.5/64
3.	3.07	X	0.750	440	14.2	86	2065	240	5632	8/64
4.	3.07	X	0.750	440	23.2	78	1649	240	5159	12/64
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, F _{sp}	Rate of Flow Q, Mcfd
1	2.67	42.34	448.2	0.9680	1.2032	1.0414	137
2	2.67	66.11	448.2	0.9723	1.2032	1.0426	215
3	2.67	80.36	453.2	0.9759	1.2032	1.0441	263
4	2.67	102.65	453.2	0.9831	1.2032	1.0461	339
5							

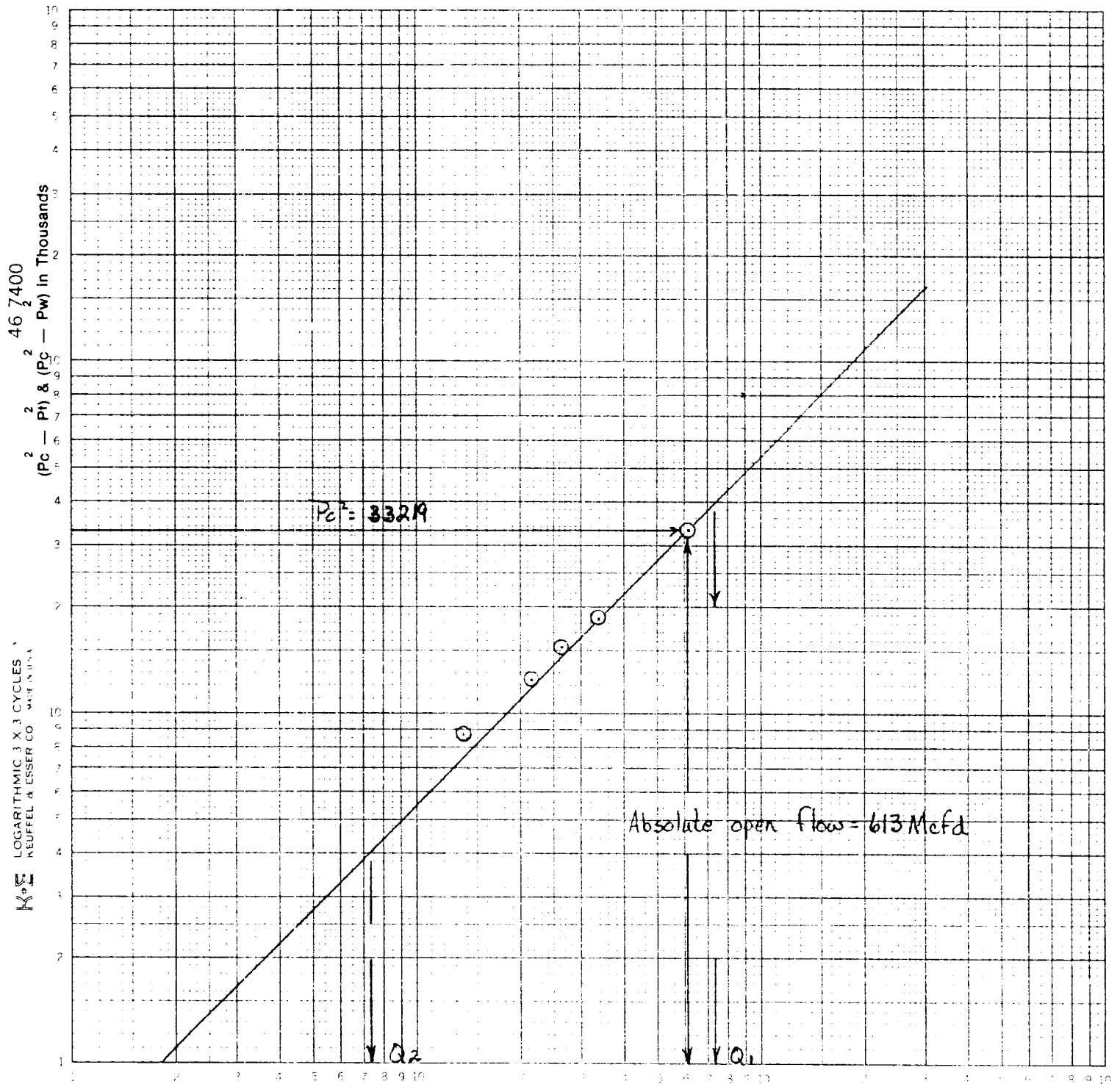
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 3404 Mcf/bbl.
1	0.67	555	1.44	0.922	A.P.I. Gravity of Liquid Hydrocarbons 48.700 Deg.
2	0.67	550	1.43	0.920	Specific Gravity Separator Gas 0.691 XXXXXXXXXX
3	0.68	546	1.42	0.917	Specific Gravity Flowing Fluid XXXXXX 0.691
4	0.68	538	1.40	0.914	Critical Pressure 667. P.S.I.A. 667. P.S.I.A.
5					Critical Temperature 385. °R 385. °R

$P_r = 5763.6 P_c^2 = 33219$				$(1) \frac{P_c^2}{P_r^2 - P_w^2} = 1.8054$ $(2) \left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.8054$	
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	$AOI = Q \left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 613$
1		4944	24447	8772	
2		4564	20830	12389	
3		4255	18102	15117	
4		3850	14819	18400	
5					

Absolute Open Flow 613 Mcfd @ 15.025	Angle of Slope 45.0	Slope, n 1.000
Remarks: BHP MEASURED WITH AMERADA PRESSURE ELEMENT		
Approved By Commission	Conducted By BENNETT & CATHEY	Calculated By RICHARD TOWNLEY
Checked By		

NETT & CATHEY PRODUCTION TESTING BACK PRESSURE CURVE

Operator Pogo Producing Company Lease State L 922 Well No. 2
 County Lea Field _____ Location J 28 215 34E
 Date of Test 8-17-85 Slope "n" 1.000 Angle of Slope 45°
 Calc. Abs. Potential 613 MCF/D



$$\frac{\Delta P_1^2}{\Delta P_2^2} \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} = \frac{40000}{4000}$$

$$Q_1 = 740$$

$$Q_2 = 74$$

Q in MCF/Day

$$\text{LOG } Q_1 = 2.86923$$

$$\text{LOG } Q_2 = 1.86923$$

$$n = 1.000$$

RECEIVED

SEP - 8 1985

O.C.D.
HOBBS OFFICE