

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 4-POINT ☐ Annual ☐ Special				Test Date 10-19-83		1600 FNL	
Company PERRY R. BASS				Connection NATURAL GAS PIPE LINE CO.		600 FWL	
Pool UNDES.				Formation ATOKA		Unit E	
Completion Date 10-13-83		Total Depth 14,131'		Play Back 1 13465		Elevation 3638'	
Farm or Lease Name C. A. LOOMIS				Well No. #1			
Case Size 5.500	Wt. 17	d 4.892	Set At 13465	Perforations: From 13017 To 13027		Unit Sec. Twp. Rge. E 5 21S 32E	
Trg. Size 2.375	Wt. 4.7	d 1.995	Set At 12919	Perforations: From OPEN To ENDED			
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE				Packer Set At 12,900'		County LEA	
Producing thru TUBING		Reservoir Temp. °F 60°		Mean Annual Temp. °F 60°		Base Press. - P _a 13.2	
State NEW MEXICO							
L 13022	H 13022	G _g .658	% CO ₂ .371	% N ₂ 1.920	% H ₂ O 0	Prover 0	Motor Run 4.026
						Type FLANGE	

FLOW DATA						TUBING DATA		B.H.P. 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.		CHOKE
1	4.03 X 1.000			455	6.0	87	4730	55	6537	2/64	1.0
2	4.03 X 1.000			455	7.0	96	4080	52	5806	4/64	1.0
3	4.03 X 1.000			455	9.0	104	3520	51	5130	6/64	1.0
4	4.03 X 1.000			455	16.0	104	2760	47	4160	8/64	1.0
5											

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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.75	53.00	468.2	0.9750	1.2328	1.0421	316.
2	4.75	57.25	468.2	0.9671	1.2328	1.0395	337.
3	4.75	64.91	468.2	0.9602	1.2328	1.0371	379.
4	4.75	86.55	468.2	0.9602	1.2328	1.0371	505.
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NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.70	547	1.45	0.921	0	
2	0.70	556	1.48	0.926	0	
3	0.70	564	1.50	0.930	0.658	
4	0.70	564	1.50	0.930	0.658	
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Specific Gravity Separator Gas 0.658				Specific Gravity Flowing Fluid XXXXXX			
Critical Pressure 670				Critical Temperature 377			
A.P.I. Gravity of Liquid Hydrocarbons 0				Deg. XXXXXX			
P.S.I.A. 670				P.S.I.A. 377			

NO.	P ₁ ²	P _w	P ₂ ²	P ₂ ² - P _w ²
1	42905	5016	25159	16079
2	33863	4371	19107	22132
3	26453	3791	14375	26863
4	17416	2997	8983	32255
5				

(1) $\frac{P_c^2}{P_0^2 - P_w^2} = 1.2785$

ADP = 0 $\left[\frac{P_c^2}{P_0^2 - P_w^2} \right]^n = 646$

(2) $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 1,2785$

Absolute Open Flow 646.	Mcf @ 15.025	Angle of Slope 45.0	Slope, n 1.000
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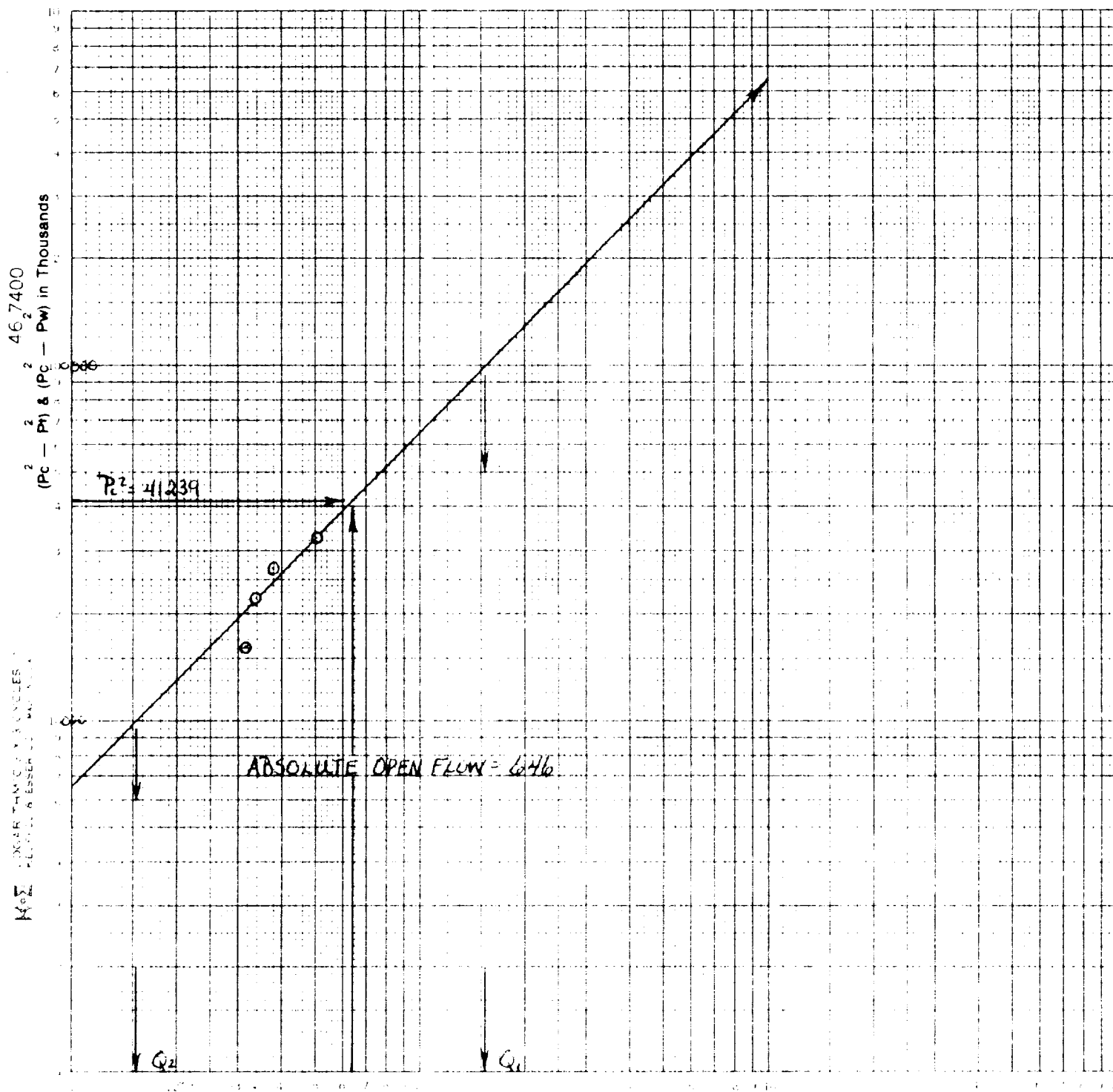
Remarks: **BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.**

Approved by Commission	Conducted by RICHARD TOWNLEY	Calculated by BENNETT & CATHEY	Checked by
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BENNETT & CATHEY PRODUCTION TESTING BACK PRESSURE CUR

Operator BOSS, PERRY R. Lease C.A. LUMMIS Well No. 1
 County LEA Field UNRES. ATOKA Location 1600' FNL + 660' FWL
 Date of Test 10-19-83 Slope "n" 1.000 Angle of Slope 45°

Calc. Abs. Potential 646 MCF/D



$$\Delta P_1: P_c^2 - P_w^2 = 100000$$

$$\Delta P_2: P_c^2 - P_w^2 = 10000$$

$$Q_1 = 1530$$

$$Q_2 = 153$$

Q in MCF/Day

$$\log Q_1 = 3.18469$$

$$\log Q_2 = 2.18469$$

$$n = 1.00000$$