

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

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RECEIVED
C-1207
FEB 15 1979

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12-14-78		O. C. C. ARTERIA, OFFICE	
Company Texas Oil & Gas Corp.				Connection Vent					
Pool Hindoo Cemetary <i>Morrow</i>				Formation Morrow				Unit	
Completion Date 12/ 5/78		Total Depth 9747'		Plug Back TD 9560		Elevation 3654.1 KB		Farm or Lease Name Indian Hills St. Com.	
Csg. Size 4 1/2"	Wt. 11.6	d	Set At	Perforations: From 9387 To 9528		Well No. 2			
Thq. Size 2 3/8"	Wt.	d	Set At 9293	Perforations: From Open Ended To		Unit Sec. Twp. Rge. P 36 20S 24E			
Type Well - Single - Rodenhead - G.G. or G.O. Multiple Single						Packer Set At 9293		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 174 @ 9458		Mean Annual Temp. °F		Baro. Press. - P _a 13.2		State New Mexico	
L 9.458	H	Gg .672	% CO ₂ 8.79	% N ₂ 1.25	% H ₂ S .01	Prover X	Meter Run	Taps	

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	
SI							2706	57			
1.	2"	X	1/16"	2310		60	2310	60			1 Hr.
2.	2"	X	3/32"	1818		62	1818	62			1 Hr.
3.	2"	X	1/8 "	1187		62	1187	62			1 Hr.
4.	2"	X	3/16"	531		66	531	66			1 Hr.
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	.06405		2323.2	1.000	1.220	1.174	213
2.	.1410		1831.2	.9981	1.220	1.152	362
3.	.2648		1200.2	.9981	1.220	1.106	428
4.	.6082		650.2	.9943	1.220	1.056	507
5.							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	3.29	520	1.43	.725	A.P.I. Gravity of Liquid Hydrocarbons None Produced Deg.
2.	2.59	522	1.44	.753	Specific Gravity Separator Gas .672 XXXXXXXXXX
3.	1.70	522	1.44	.817	Specific Gravity Flowing Fluid XXXXX
4.	0.92	526	1.45	.897	Critical Pressure 706 P.S.I.A. P.S.I.A.
5.					Critical Temperature 363 R R

P _f 3478.2 P _s ² 12,098				
NO	P _f ²	P _s	P _s ²	P _f ² - P _s ²
1		3093.2	9568	2530
2		2697.2	7275	4823
3		2174.2	4727	7371
4		1582.2	2503	9595
5				

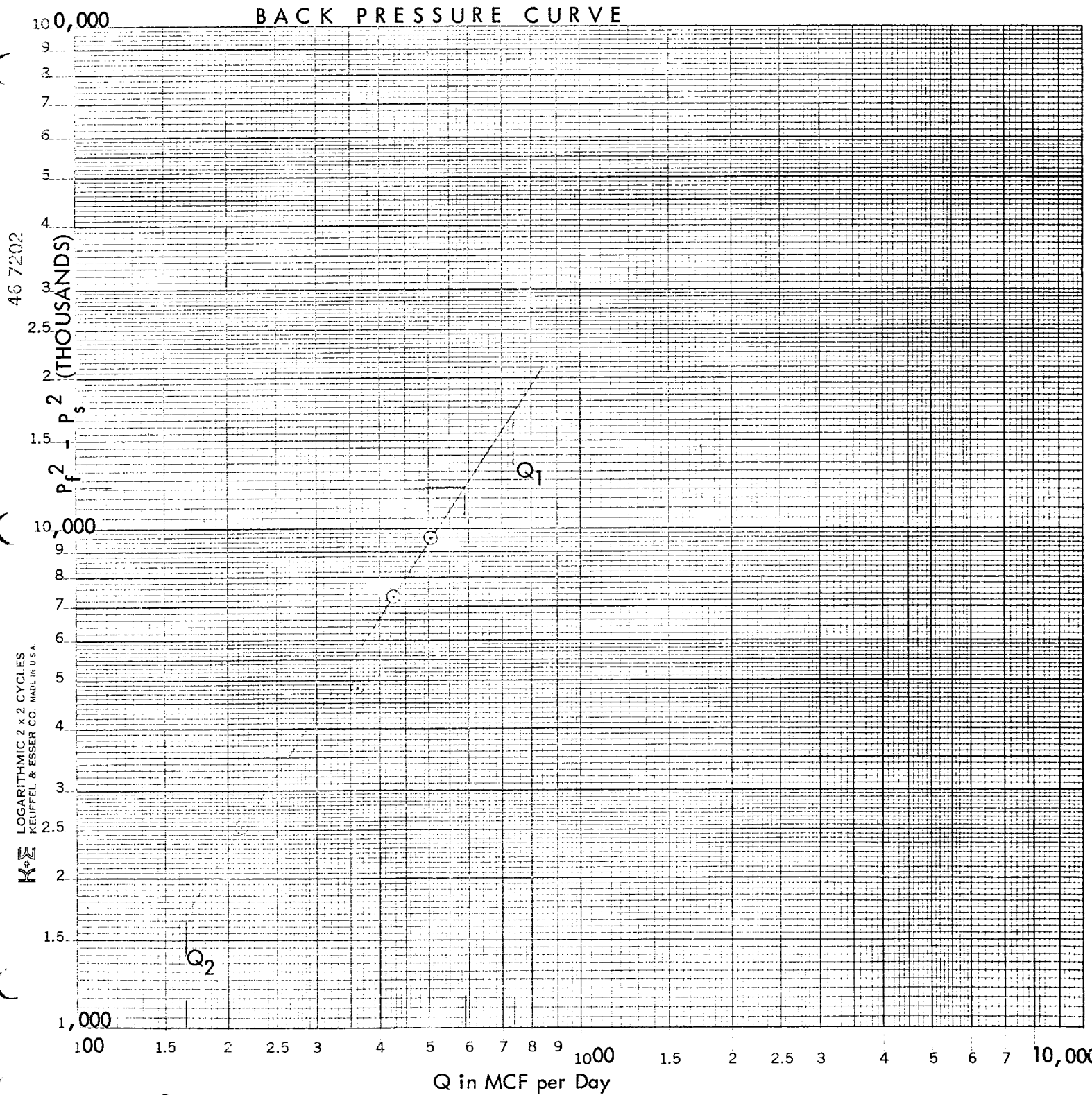
$$(1) \frac{P_f^2}{P_f^2 - P_s^2} = 1.2608$$

$$AOF = Q \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 589.717$$

$$(2) \left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 1.163$$

Tested 2-16-79 P.M. / NGP

Absolute Open Flow 590	Mcfd @ 15.025	Angle of Slope Θ 56.9°	Slope, n .652
Remarks:			



$$\theta = 56.9^\circ$$

$$n = .652$$

$$AOF = 590$$

$$Q_1 = 740 \text{ MCFD}; \text{Log } Q_1 = 2.86923$$

$$Q_2 = 165 \text{ MCFD}; \text{Log } Q_2 = 2.21748$$

$$n = .652$$