

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3-16-78				
Company Yates Petroleum Corp.				Connection El Paso Natural Gas Company				MAY 15 1978	
Pool <i>Perasco Draw moran gas</i> Undesignated				Formation Morrow				Unit O.C.C. ARTESIA, OFFICE	
Completion Date 3-13-78		Total Depth 8800' KB		Plug Back TD 8767' KB		Elevation 3630' KB		Farm or Lease Name Federal "AB" Com.	
Csq. Size 5-1/2"	Wt. 17#	d 4.892	Set At 8800' KB	Perforations: From 8570 To 8590'			Well No. 4		
Tbg. Size 2-7/8"	Wt. 6.4#	d 2.441	Set At 8568'	Perforations: From 8532 To 8535			Unit Sec. Twp. Rge. B 30 18S 25E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8526' KB		County Eddy			
Producing Thru Tubing		Reservoir Temp. °F 144 @ 8580		Mean Annual Temp. °F 62		Baro. Press. - P _g 13.2		State New Mexico	
L 8572	H 8572	G _g 0.628	% CO ₂ 0.46	% N ₂ 0.27	% H ₂ S Nil	Prover	Meter Run 4"	Taps Flange	

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							2607	68			2 days
1.	4.026 x 2.000			534	11.5	72	2510	72			1 hour
2.				549	26	70	2438	75			1 hour
3.				564	55	68	2315	78			1 hour
4.				590	98	65	2143	80			1 hour
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	19.81	79.33	547.2	.9887	1.275	1.0462	2073
2.		120.90	562.2	.9905	1.275	1.0486	3172
3.		178.17	577.2	.9924	1.275	1.0505	4692
4.		243.13	603.2	.9952	1.275	1.0544	6444
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	211.65 Mcf/bbl.
1.	.813	532	1.470	.9137	A.P.I. Gravity of Liquid Hydrocarbons	63.8 Deg.
2.	.835	530	1.464	.9095	Specific Gravity Separator Gas	0.615
3.	.858	528	1.459	.9062	Specific Gravity Flowing Fluid	XXXXXX
4.	.896	525	1.450	.8994	Critical Pressure	673 P.S.I.A.
5.					Critical Temperature	362 R

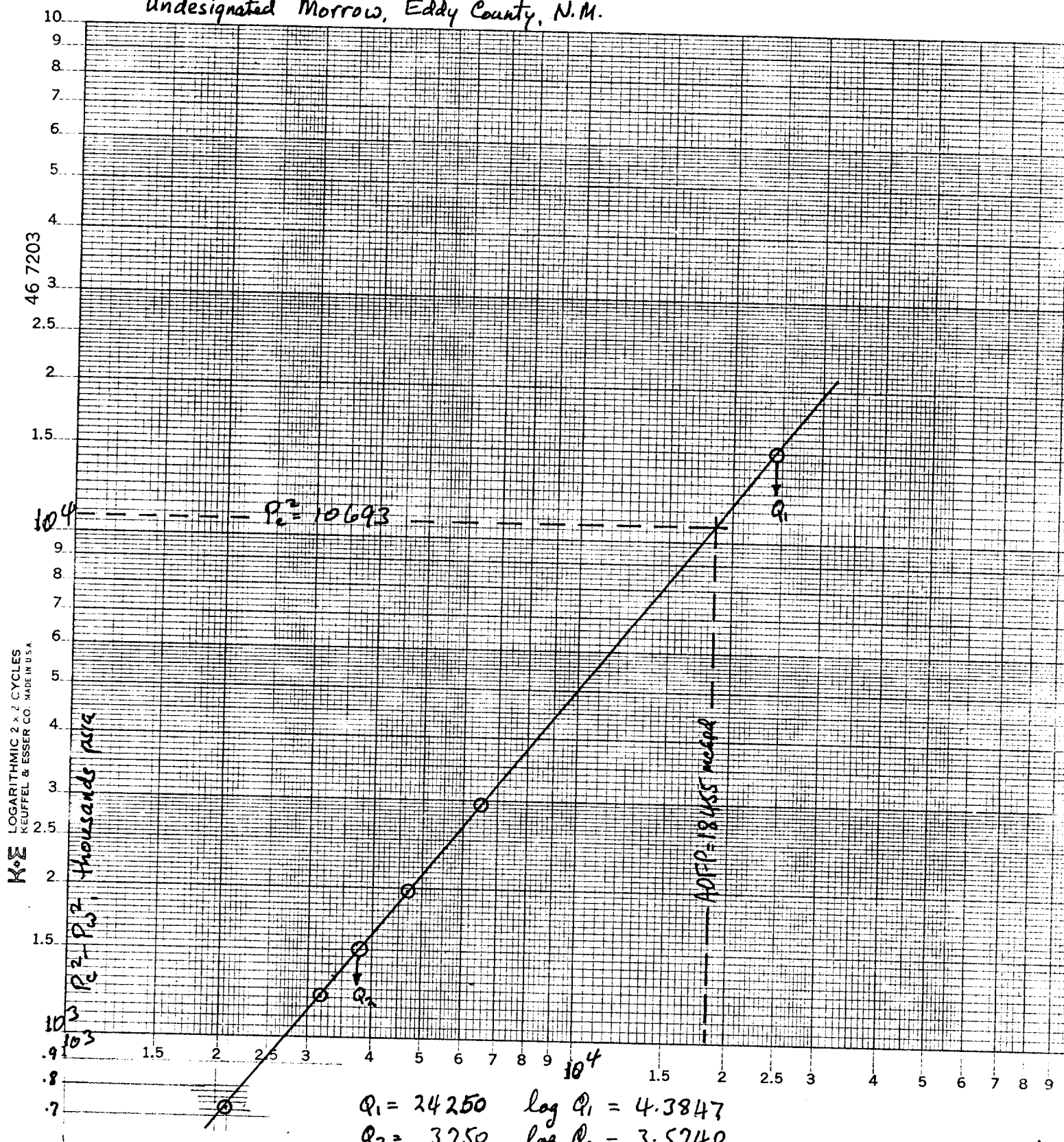
P _c 3270	P _c ² 10693	(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 3.662$	(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 2.864$
NO.	P _t ²	P _w	P _w ²
1			9969
2			9482
3			8727
4			7773
5			

Absolute Open Flow		18455 Mcfd @ 15.025	Angle of Slope @ 51 degrees	Slope, n 0.8107
Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations worksheet C122-D attached.				
Approved By Commission:		Conducted By: David Weaver	Calculated By: Eddie M. Mahfood	Checked By:

YPC - Federal AB No. 4

Unit B Sec 30-18s-25E

Undesignated Morrow, Eddy County, N.M.



$$Q_1 = 24250 \quad \log Q_1 = 4.3847$$

$$Q_2 = 3750 \quad \log Q_2 = 3.5740$$

$$n = 0.8107$$