

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 10-15-81		DEC 16 1981	
Company Yates Petroleum Corporation /				Connection Transwestern Pipeline Co		O. C. D. ARTESIA, OFFICE	
Pool Boyd Morrow				Formation Morrow		Unit LC 067136	
Completion Date 8-6-81		Total Depth 9150 KB		Plug Back To 9095 KB		Elevation 3518 KB	
Casing Size 5 1/2"		Wt. 17#		Set At 4.892		Perforations: From 8847 To 8870 KB	
Tubing Size 2 7/8"		Wt. 6.5#		Set At 2.441		Perforations: From To	
Type Well - Single - Draddenhead - G.G. or G.O. Multiple single				Packer Set At 8799		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 146		Mean Annual Temp. °F 8859 KB		Baro. Press. - P _a 62	
L 8851		H 8851		C _q 0.6267		% CO ₂ 2.65	
				% N ₂ 0.37		% H ₂ S Nil	
				Prover --		Meter Run 4"	
						Taps Flanged	

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	
1	4.026	X	1.500	440	7	72	2644	70			Days
2	4.026	X	1.500	468	12	72	2295	77			22 hrs.
3	4.026	X	1.500	470	22	72	2085	79			24 hrs.
4	4.026	X	1.500	473	37	74	1660	80			24 hrs.
5							793	80			24 hrs.

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, Mcd
1	10.84	56.32	453.2	.9887	1.270	1.0375	795
2	10.84	75.20	471.2	.9887	1.270	1.0389	1063
3	10.84	103.10	483.2	.9887	1.270	1.0399	1459
4	10.84	134.12	486.2	.9868	1.270	1.0401	1895
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
1	0.662	532	1.474	.9291	454.76	52.6	0.620	XXXXXX	685	361
2	0.688	532	1.474	.9265				XXXXXX		
3	0.705	532	1.474	.9248						
4	0.710	534	1.479	.9243						
5										

P _r	3477.2	P _c	12091
NO.	P _r	P _w	R _r
1			9115
2			7511
3			4678
4			1040
5			

(1) $\frac{P_r^2}{R_r^2 - R_w^2} = 1.0941$

(2) $\left[\frac{P_r^2}{R_r^2 - R_w^2} \right]^n = 1.06106$

AOF = Q $\left[\frac{R_r^2}{P_r^2 - R_w^2} \right]^n = 2011$

Absolute Open Flow 2011

Mcd @ 15.025

Angle of Slope 56.6 deg.

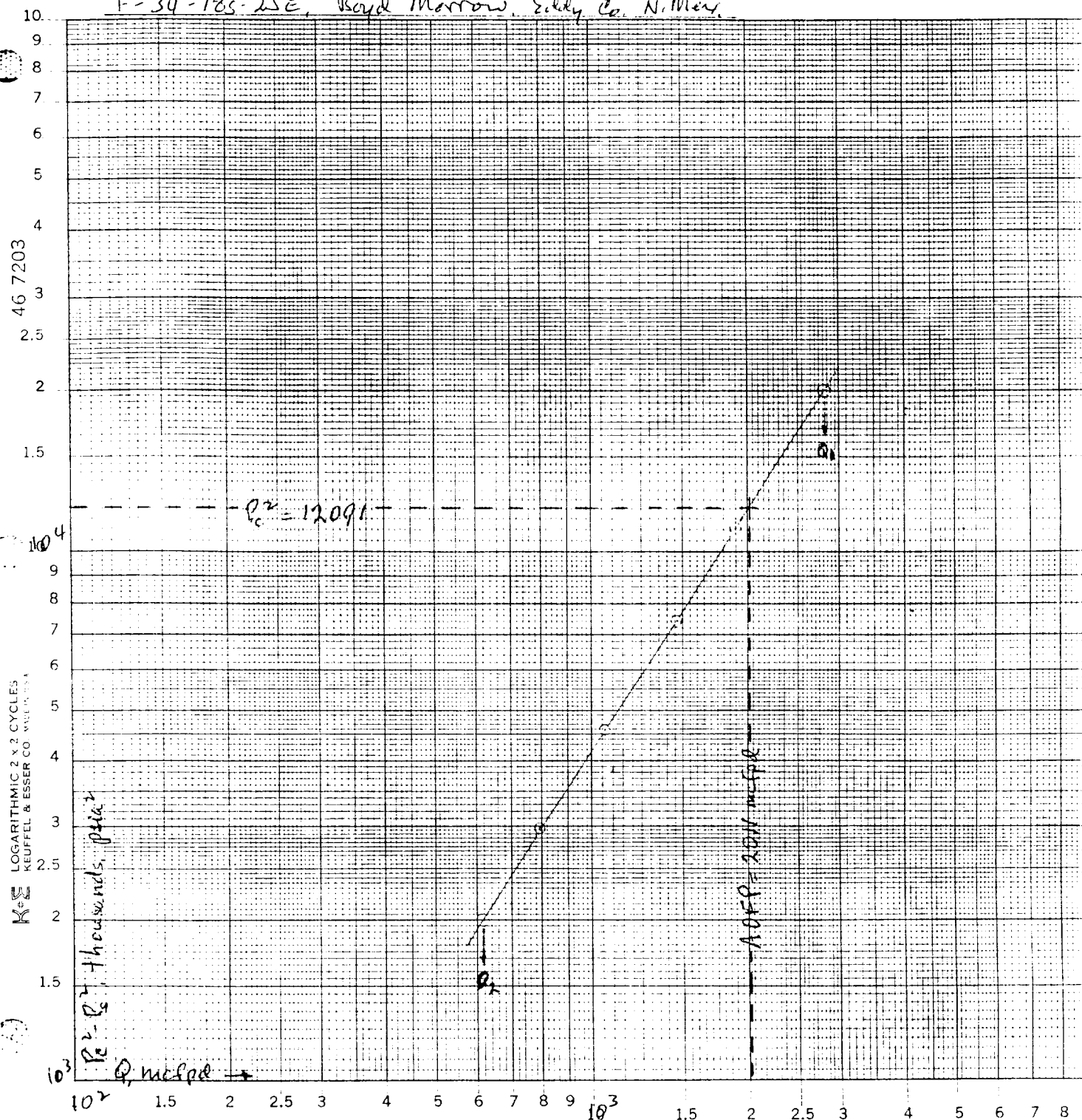
Slope, n 0.6590

Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations worksheet C122D attached

Approved By Commission:	Conducted By: Danny Matthews	Calculated By: Eddie Mahfood	Checked By:
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YPC- SCOUT EH Federal No 5

F-34-185-25E, Boyd Morrow, Eddy Co. N.Mex.



$$Q_1 = 2805 \text{ mcfpd} \quad \log Q_1 = 3.4479$$

$$Q_2 = 615 \text{ mcfpd} \quad \log Q_2 = 2.7889$$

$$n = 0.6590$$

LOCATION: Unit _____ Section 50 Township 18 N Range 6 E

[illegible]

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$$f_2 = \frac{667794}{102168 + 429111} = 0.611 \quad G_{\text{max}} = 620 - \frac{100(900)}{667794} = \frac{743}{11250}$$

$$= \frac{102170}{1001684} = 0.0202$$

$$\frac{6700000}{1000000} = 6.7$$

$$\frac{0.611}{0.0202} = 30.25$$

$$0.611 \times 30.25 = 18.48$$

$$\frac{59637}{100000} = 0.59637$$