

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

421 pte C-122

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JUN 08 1984

O. C. D.

AMERICA OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4/25/84	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company	
Pool Pecos Slope Abo 82130 4-1-96		Formation Abo	
Completion Date 5/3/83	Total Depth 5008.0'	Plug Back TD 4954.0'	Elevation 3784.7'
Csg Size Wt. 4.500" 9.500#		d 4.090"	Set At 5008.0'
Tbg Size Wt. 2.375" 4.700#		d 1.995"	Set At 4682.0'
Type Well Single		Packer Set At 4682.0'	
Producing Thru Tubing	Resv. Temp. °F 112 @ 1141'	Mean Temp. °F 62.0	Baro. Press. - Pa 13.2 psia.
L 4682.0'	H 4682.0'	Gg .643	%CO2 .06
		%N2 5.45	%H2S 0.00
		Prover 0.000"	Meter Run 2.000"
		Taps Flange	
FLOW DATA		TUBING DATA	
NO	Prover Orifice Size X Size	Press. psig	Diff. hw
SI	0.000 X 0.000	0	0.0
1.	2.067 X 1.375	305	15.8
2.	2.067 X 1.375	300	18.5
3.	2.067 X 1.375	280	38.7
4.	2.067 X 1.375	260	55.0
5.	0.000 X 0.000	0	0.0
RATE OF FLOW CALCULATIONS		CASING DATA	
NO	Coefficient (24 HOUR)	Pressure Pm	Flow Temp Factor Ft.
1.	10.204	318.20	.991
2.	10.204	313.20	.991
3.	10.204	293.20	.991
4.	10.204	273.20	.991
5.	0.000	0.00	0.000
		Gravity Factor Fg	Super Compress. Fact. Fpv
		1.247	1.025
		1.247	1.024
		1.247	1.022
		1.247	1.021
		0.000	0.000
		Rate of Flow Q, Mcfd	
		917	
		984	
		1374	
		1579	
		0	
NO	Pr	Temp. °R	Tr
1.	.48	529	1.49
2.	.47	529	1.49
3.	.44	529	1.49
4.	.41	529	1.49
5.	0.00	0	0.00
		Z	
		.953	
		.953	
		.957	
		.960	
		0.000	
		Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.	
		0.000 Deg.	
		A.P.I. Gravity of Liquid Hydrocarbons	
		.643	
		Specific Gravity Separator Gas .643	
		Specific Gravity Flowing Fluid .643	
		Critical Pressure 661.6 PSIA	
		Critical Temperature 354.8°R	
		354.8°R	
Pc 1018.2 Pc2 1036.7			
NO	Pt2	Pw	Pw2
1.	918.1	964.8	930.8
2.	880.2	946.0	894.9
3.	835.8	929.8	864.5
4.	788.9	909.4	826.9
5.	0.0	0.0	0.0
		Pc2-Pw2 (1)	Pc2-Pw2 (2)
		4.9916	3.6323
		ROF = Q [$\frac{Pc2}{Pc2-Pw2}$]^n = 5734 Mcfd	
Absolute Open Flow		5734 Mcfd @ 15.025	
Remarks:		Angle of Slope, 0 39 Slope, n .802	

Approved By: _____ Conducted By: David Weaver

Calculated By: Andie Carpenter

Checked By: _____

Adopted 9-1-65

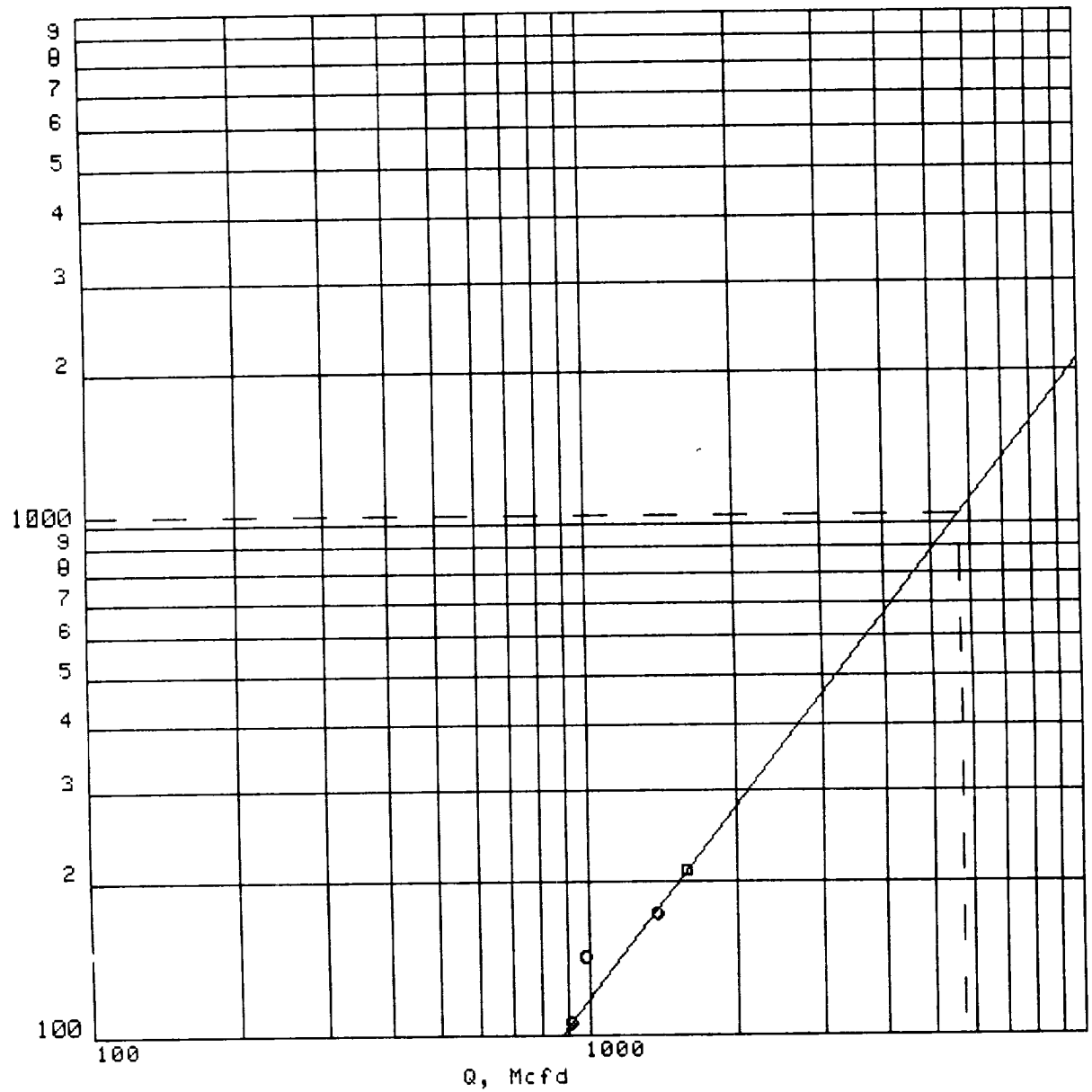
DATE 6/7/84

COMPANY Yates Petroleum Corporation LEASE Spear "OR" Federal WELL NO. 2LOCATION: Unit D Section 15 Township 9S Range 26EL 4682.0 H 4682.0 L/H 1.000 G .643 %CO₂ .06 %N₂ 5.45 %H₂S 0.00d 1.995 Fr .017777 GH 3010.5 Pcr 661.6 Tcr 354.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.917	.984	1.374	1.579	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	572.0	572.0	572.0	572.0	0.0
4 T=(Tw+Ts)/2	547.0	547.0	547.0	547.0	0.0
5 Z(Est.)	.870	.872	.875	.877	0.000
6 TZ	475.8	477.1	478.4	479.9	0.0
7 GH/TZ	6.327	6.310	6.293	6.273	0.000
8 e ^s (Table XIV)	1.268	1.267	1.266	1.265	0.000
9 1-e ^{-s} (Table XIV)	.211	.211	.210	.210	0.000
10 Pt	958.2	938.2	914.2	888.2	0.0
11 Pt ² /1000	918.1	880.2	835.8	788.9	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.459	8.481	8.511	8.531	0.000
14 FcQm	7.753	8.342	11.696	13.469	0.000
15 L/H(FcQm) ²	60.111	69.586	136.790	181.412	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	12.696	14.663	28.734	38.027	0.000
17 Pw ² =Pt ² +Fw	930.8	894.9	864.5	826.9	0.0
18 Ps ² =e ^s Pw ²	1180.1	1133.8	1094.4	1046.2	0.0
19 Ps	1086.3	1064.8	1046.1	1022.9	0.0
20 P=(Pt+Ps)/2	1022.3	1001.5	980.2	955.5	0.0
21 Pr=(P/Pcr)	1.55	1.51	1.48	1.44	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.870	.872	.875	.877	0.000

Company	Yates Petroleum Corporation
Well	Spear "0A" Federal No. 2
Location	D, 15-9S-26E
County	Chaves
Date	6/7/84

$P_c^2 - P_w^2$, THOUSANDS



ROF= 5734