

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

Form C-122

RECEIVED BY

SEP 14 1983

O. C. D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 8/16/83				
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company				
Pool Pecos Slopes					Formation Abo Pool				
Completion Date 4/16/83					Total Depth 4150.0'		Plug Back TD 4067.0'		Elevation 3599.0'
Csg Size 4.500"					Wt. 3.500#	d 4.090"	Set At 4150.0'	Perforations: From 3726.0' To 3881.0'	
Tbg Size 2.375"					Wt. 4.700#	d 1.995"	Set At 3804.0'	Perforations: From 0.0' To 0.0'	
Type Well Single					Packer Set At 3804.0'				Unit J 34 7S 25E
Producing Thru Tubing					Resv. Temp. °F 97 @ 3804'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.
L 3804.0'					4 3804.0'	Gg .652	%CO2 .03	%N2 5.99	%H2S 0.00
							Proven 0.000"	Meter Run 2.000"	Taps Flange

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Size	Orifice Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000	0.000	0	0.0	70	884	0	0	0	0 hrs.
1.	2.067	1.375	120	23.1	70	814	62	0	0	24 hrs.
2.	2.067	1.375	160	32.5	70	759	62	0	0	24 hrs.
3.	2.067	1.375	187	66.9	70	664	62	0	0	24 hrs.
4.	2.067	1.375	230	93.0	70	540	62	0	0	24 hrs.
5.	0.000	0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOJR)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	55.47	133.20	.991	1.238	1.009	701
2.	10.204	75.03	173.20	.991	1.238	1.013	951
3.	10.204	115.73	200.20	.991	1.238	1.015	1470
4.	10.204	150.39	243.20	.991	1.238	1.019	1917
5.	0.300	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1.	.20	530	1.49	.982	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.26	530	1.49	.975	Specific Gravity Separator Gas .652
3.	.30	530	1.49	.971	Specific Gravity Flowing Fluid .652
4.	.37	530	1.49	.964	Critical Pressure 660.3 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 356.3°R

Pc	897.2	Pc2	805.0
NO	Pt2	Pw2	Pc2-Pw2
1.	684.3	830.9	690.5
2.	596.3	779.6	607.8
3.	458.6	697.6	486.6
4.	306.0	595.5	354.6
5.	0.0	0.0	0.0

$$(1) \frac{Pc^2}{Pc^2 - Pw^2} = 1.7756 \quad (2) \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.5230$$

$$AOF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2920 \text{ Mcfd}$$

Absolute Open Flow 2920 Mcfd @ 15.025 Angle of Slope, 0 36 Slope, n .733
Remarks: _____

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
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Adopted 9-1-65

DATE 9/14/83

COMPANY Yates Petroleum Corporation LEASE Federal "HY" WELL NO. 8

LOCATION: Unit J Section 34 Township 7S Range 25E

L 3804.0 H 3804.0 L/H 1.000 G .652 %CO2 .03 %N2 5.99 %H2S 0.00

d 1.995 Fr .017777 GH 2480.2 Pcr 660.3 Tcr 356.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.701	.951	1.470	1.917	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	557.0	557.0	557.0	557.0	0.0
4 T=(Tw+Ts)/2	539.5	539.5	539.5	539.5	0.0
5 Z(Est.)	.879	.886	.898	.914	0.000
6 TZ	474.2	478.1	484.7	493.3	0.0
7 GH/TZ	5.231	5.188	5.117	5.027	0.000
8 e ^{-s} (Table XIV)	1.217	1.215	1.212	1.207	0.000
9 1-e ^{-s} (Table XIV)	.178	.177	.175	.172	0.000
10 Pt	827.2	772.2	677.2	553.2	0.0
11 Pt ² /1030	684.3	596.3	458.6	306.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.429	8.498	8.616	8.770	0.000
14 FcQm	5.906	8.081	12.667	16.816	0.000
15 L/H(FcQm) ²	34.877	65.308	160.450	282.765	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	6.212	11.546	28.016	48.585	0.000
17 Pw ² =Pt ² +Fw	690.5	607.8	486.6	354.6	0.0
18 Ps ² =e ^s Pw ²	840.1	738.4	589.6	428.2	0.0
19 Ps	916.6	859.3	767.8	654.4	0.0
20 P=(Pt+Ps)/2	871.9	815.7	722.5	603.8	0.0
21 Pr=(P/Pcr)	1.32	1.24	1.09	.91	0.00
22 Tr=(T/Tcr)	1.51	1.51	1.51	1.51	0.00
23 Z(Table XI)	.879	.886	.898	.914	0.000

Company	Yates Petroleum Corporation
Well	Federal "HY" No. 8
Location	J, 34-7S-25E
County	Chaves
Date	9/14/83

