

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

Form C-122

RECEIVED

Type Test [X] Initial [] Annual [] Special					Test Date 11/21/82		JAN 20 1983	
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company			
Pool Pecos Slope - Abo					Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 6/17/82		Total Depth 4275.0'		Plug Back TD 4221.0'		Elevation 3651.5'		Farm or Lease Name Federal "HJ"
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4275.0'	Perforations: From 3684.0' To 4045.0'		Well No. 7		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3625.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge P 31 6S 26E		
Type Well Single					Packer Set At 3626.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 101 @ 3625'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 3625.0'	H 3625.0'	Gg .636	%CO2 .04	%N2 4.78	%H2S 0.00	Proven 0.000"	Meter Run 2.000"	Taps Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	72	1009	0	0	0	0 hrs.
1.	2.067 X 1.375	350	21.0	72	870	62	0	0	24 hrs.
2.	2.067 X 1.375	340	26.9	72	858	62	0	0	24 hrs.
3.	2.067 X 1.375	330	30.7	72	845	62	0	0	24 hrs.
4.	2.067 X 1.375	320	34.9	72	831	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	87.33	363.20	.989	1.254	1.028	1135
2.	10.204	97.47	353.20	.989	1.254	1.027	1266
3.	10.204	102.65	343.20	.989	1.254	1.026	1332
4.	10.204	107.84	333.20	.989	1.254	1.025	1398
5.	0.000	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.	.55	532	1.50	.947	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.53	532	1.50	.949	Specific Gravity Separator Gas .636
3.	.52	532	1.50	.950	Specific Gravity Flowing Fluid .636
4.	.50	532	1.50	.952	Critical Pressure 662.9 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 354.4°R

Pc 1022.2 Pc² 1044.9				
NO	Pt²	Pw	Pw²	Pc²-Pw² (1)
1.	780.0	891.8	795.3	249.6
2.	759.0	882.1	778.0	266.9
3.	736.5	870.4	757.6	287.3
4.	712.7	857.9	736.0	308.9
5.	0.0	0.0	0.0	0.0

$$\frac{Pc^2}{Pc^2 - Pw^2} = \frac{3.3840}{1} \quad (2) \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = \frac{2.2909}{1}$$

$$AOF = 0 \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 3204 \text{ Mcfd}$$

Absolute Open Flow 3204 Mcfd @ 15.025 Angle of Slope, 0 34 Slope, n .680
Remarks: _____

Approved By:	Conducted By: David Weaver	Calculated By: Andie Alderson	Checked By:
--------------	-------------------------------	----------------------------------	-------------

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 1/19/83

COMPANY Yates Petroleum Corporation LEASE Federal "HJ" WELL NO. 7

LOCATION: Unit P Section 31 Township 6S Range 26E

L 3625.0 H 3625.0 L/H 1.000 G .636 %CO₂ .04 %N₂ 4.78 %H₂S 0.00

d 1.995 Fr .017777 GH 2305.5 Pcr 662.9 Tcr 354.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.135	1.266	1.332	1.398	0.000
2 Tw(W.H.%R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.%R)	561.0	561.0	561.0	561.0	0.0
4 T=(Tw+Ts)/2	541.5	541.5	541.5	541.5	0.0
5 Z(Est.)	.876	.878	.879	.881	0.000
6 TZ	474.5	475.3	476.1	477.0	0.0
7 GH/TZ	4.858	4.851	4.842	4.833	0.000
8 e ^{-S} (Table XIV)	1.200	1.199	1.199	1.199	0.000
9 1-e ^{-S} (Table XIV)	.167	.166	.166	.166	0.000
10 Pt	883.2	871.2	858.2	844.2	0.0
11 Pt ² /1000	780.0	759.0	736.5	712.7	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.436	8.454	8.464	8.485	0.000
14 FcQm	9.577	10.703	11.275	11.865	0.000
15 L/H(FcQm) ²	91.712	114.556	127.133	140.781	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-S})	15.275	19.042	21.111	23.325	0.000
17 Pw ² =Pt ² +Fw	795.3	778.0	757.6	736.0	0.0
18 Ps ² =e ^S Pw ²	954.3	933.1	908.5	882.2	0.0
19 Ps	976.9	966.0	953.1	939.2	0.0
20 P=(Pt+Ps)/2	930.0	918.6	905.7	891.7	0.0
21 Pr=(P/Pcr)	1.40	1.39	1.37	1.35	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.876	.878	.879	.881	0.000

Company	Yates Petroleum Corporation
Well	Federal "HJ" No. 7
Location	P, 31-6S-26E
County	Chaves
Date	1/19/83

