NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7/2/04	30-025-22509
Company: Yates Petroleum Corporation			Connection: 7/23/04		
Pool: Wildcat Morrow			Formation: Morrow		Unit:
Completion Date: 7/1/04	Total Depth: 12650		Plug Back TD: 12274	Elevation: 4144	Farm or Lease Name: Tubb State Unit
Csg. Size: 4.500 / Wt.: 11.600 / d: 4.000 / Set At: 12650			Perforations: From 12231 To 12259		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.700 / d: 1.995 / Set At: 12046			Perforations: From 12231 To 12259		Unit: G / Sec.: 16 / Twp.: 10S / Rge.: 34E
Type Well: Single			Packer Set At: 12046		County: Lea
Producing Thru: Tubing	Resv. Temp. °F: 196 @ 12236		Mean Temp. °F: 62	Baro. Press. - Pa: 13.2	State: NM

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
12046	12046	0.712	1.910	1.259	0.000	0.000	2.000	Flange

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI.	0.000	x 0.000	0	0.0	0	2500	0			0
1.	2.067	x 1.375	500	4.0	60	1700	60			24
2.	2.067	x 1.375	500	5.0	60	1300	60			24
3.	2.067	x 1.375	500	6.0	60	900	60			24
4.	2.067	x 1.375	500	7.0	60	500	60			24
5.		x								

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	10.200	45.3	513.2	1.0000	1.185	1.061	581
2.	10.200	50.7	513.2	1.0000	1.185	1.061	650
3.	10.200	55.5	513.2	1.0000	1.185	1.061	712
4.	10.200	59.9	513.2	1.0000	1.185	1.061	769
5.							

NO.	Pr	Temp °R	Tr	Z
1.	0.76	520	1.35	0.888
2.	0.76	520	1.35	0.888
3.	0.76	520	1.35	0.888
4.	0.76	520	1.35	0.888
5.				

Gas Liquid Hydrocarbon Ratio	26 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	56.500 Deg.	
Specific Gravity Separator Gas	0.712	XXXXXXXXXX
Specific Gravity Flowing Fluid	XXXXXXXXXX	0.820
Critical Pressure	674 P.S.I.A.	670 P.S.I.A.
Critical Temperature	386 °R	422 °R

Pc 2513.2 Pc^2 6316.2

NO.	Pt^2	Pw	Pw^2	$Pc^2 - Pw^2$
1.	2935.1	1716.3	2945.8	3370.4
2.	1724.5	1318.5	1738.5	4577.7
3.	833.9	923.5	852.9	5463.3
4.	263.4	537.4	288.8	6027.4
5.				

(1) $\frac{Pc^2}{Pc^2 - Pw^2}$ = 1.156 (2) $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 1.092

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 777

RECEIVED Hobbs OCD

Absolute Open Flow 777 Mcfd @ 15.025 | Angle of Slope θ 31 | Slope, n 0.608

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Mike Barrett	Misty Carter	George Freeman

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

DATE 7/2/04

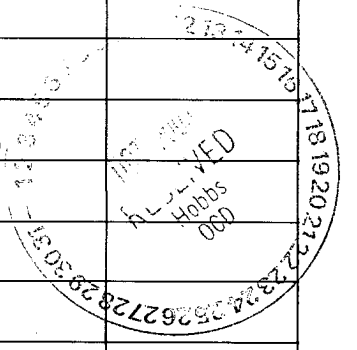
COMPANY Yates Petroleum Corporation LEASE Tubb State Unit WELL NO. 1

LOCATION: Unit G Section 16 Township 10S Range 34E

L 12046 H 12046 L / H 1.000 G 0.820 %CO_2 1.910 %N_2 1.259 %H_2S 0.000

d 1.995 Fr 0.017777 GH 9882.5 Pcr 670.4 Tcr 422.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.581	0.650	0.712	0.769	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	656	656	656	656	
4 T = (Tw+Ts) / 2	587.7	587.7	587.7	587.7	
5 Z (Est.)	0.699	0.723	0.789	0.876	
6 TZ	411.0	424.7	463.5	515.0	
7 GH / TZ	24.044	23.268	21.324	19.191	
8 e^s(Table XIV)	2.464	2.392	2.224	2.054	
9 1-e^-s(Table XIV)	0.594	0.582	0.550	0.513	
10 Pt	1713.2	1313.2	913.2	513.2	
11 Pt^2 / 1000	2935.1	1724.5	833.9	263.4	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	7.307	7.550	8.239	9.154	
14 FcQm	4.25	4.91	5.86	7.04	
15 L / H$(FcQm)^2$	18.0	24.1	34.4	49.5	
16 Fw = L / H$(FcQm)^2$(1-e^-s)	10.71	14.02	18.93	25.41	
17 $Pw^2 = Pt^2+Fw$	2945.8	1738.5	852.9	288.8	
18 $Ps^2 = e^sPw^2$	7257.2	4158.5	1897.0	593.1	
19 Ps	2693.9	2039.2	1377.3	770.1	
20 P = (Pt+Ps) / 2	2203.6	1676.2	1145.3	641.7	
21 Pr = (P / Pcr)	3.29	2.50	1.71	0.96	
22 Tr = (T / Tcr)	1.39	1.39	1.39	1.39	
23 Z (Table XI)	0.699	0.723	0.789	0.876	



Company: Yates Petroleum Corporation
Well: Tubb State Unit #1
Location: G 16-10S-34E

County: Lea
Date: 7-2-04