NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122 GSP

MULTIPOI ND ONE POINT BACK PRESSURE TEST FOR S WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9/29/1999	
Company: Yates Petroleum Corp			Connection: Agave Energy Company		
Pool: Hoag Tank			Formation: Atoka		Unit
Completion Date: 9/10/1999	Total Depth: 9985		Plug Back TD: 8700	Elevation: 3648	Farm or Lease Name: ALLISON CQ FEDERAL
Csg. Size: 5.500 / Wt.: 17.000 / d: 4.892 / Set At: 9985			Perforations: From 8475 To 8547		Well No.: 7
Tbg. Size: 2.375 / Wt.: 4.700 / d: 1.990 / Set At: 8402			Perforations: From 8475 To 8547		Unit: E / Sec.: 23 / Twp.: 19S / Rge.: 24E
Type Well: Single			Packer Set At: 8411		County: Eddy
Producing Thru: Tubing	Resv. Temp. °F: 144 @ 8500	Mean Temp. °F: 62	Baro. Press. - Pa: 13.2		State: New Mexico

L	H	Gg	$\%CO_2$	$\%N_2$	$\%H_2S$	Prover	Meter Run	Taps
9985	9985	0.603	0.398	0.845	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	500	0			0
1.	2.067	x	0.375	330	13.0	60	380	60			24
2.	2.067	x	0.375	330	16.0	60	357	60			24
3.	2.067	x	0.375	330	20.0	60	330	60			24
4.	2.067	x	0.375	330	22.0	60	310	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.	0.669	66.8	343.2	1.0000	1.288	1.029	59
2.	0.669	74.1	343.2	1.0000	1.288	1.029	66
3.	0.669	82.8	343.2	1.0000	1.288	1.029	73
4.	0.669	86.9	343.2	1.0000	1.288	1.029	77
5.							

NO.	Pr	Temp °R	Tr	Z
1.	0.51	520	1.47	0.945
2.	0.51	520	1.47	0.945
3.	0.51	520	1.47	0.945
4.	0.51	520	1.47	0.945
5.				

Gas Liquid Hydrocarbon Ratio	0 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.	
Specific Gravity Separator Gas	0.603	xxxxxxxxxx
Specific Gravity Flowing Fluid	xxxxxxxxxx	0.603
Critical Pressure	672 P.S.I.A.	672 P.S.I.A.
Critical Temperature	354 °R	354 °R

Pc 513.2 Pc^2 263.4

NO.	Pt^2	Pw	Pw^2	$Pc^2 - Pw^2$
1.	154.6	393.3	154.7	108.7
2.	137.0	370.4	137.2	126.2
3.	117.8	343.4	118.0	145.4
4.	104.5	323.5	104.6	158.7
5.				

(1) $\frac{Pc^2}{Pc^2 - Pw^2}$ = 2.087 (2) $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 1.666

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 109

Absolute Open Flow 109 Mcfd @ 15.025 Angle of Slope θ 35 Slope, n 0.694

Remarks:

MAY 2000 RECEIVED OCD - ARTESIA

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Johnny Blount	Katie Brunson	Pinson McWhorter

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

DATE 9/29/1999

COMPANY Yates Petroleum Corp LEASE ALLISON CQ FEDERAL WELL NO. 7

LOCATION: Unit E Section 23 Township 19S Range 24E

L 9985 H 9985 L / H 1.000 G 0.603 %CO_2 0.398 %N_2 0.845 %H_2S 0.000

d 1.990 Fr 0.017894 GH 6021.0 Pcr 672.2 Tcr 354.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.059	0.066	0.073	0.077	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	604	604	604	604	
4 T = (Tw+Ts) / 2	561.7	561.7	561.7	561.7	
5 Z (Est.)	0.947	0.950	0.953	0.956	
6 TZ	531.8	533.4	535.4	536.9	
7 GH / TZ	11.323	11.287	11.245	11.214	
8 e^s(Table XIV)	1.529	1.527	1.525	1.523	
9 1-e^-s(Table XIV)	0.346	0.345	0.344	0.343	
10 Pt	393.2	370.2	343.2	323.2	
11 Pt^2 / 1000	154.6	137.0	117.8	104.5	
12 Fr (Table XV)	0.017894	0.017894	0.017894	0.017894	
13 Fc = FrTZ	9.515	9.545	9.581	9.608	
14 FcQm	0.56	0.63	0.70	0.74	
15 L / H$(FcQm)^2$	0.3	0.4	0.5	0.5	
16 Fw = L / H$(FcQm)^2$(1-e^-s)	0.11	0.14	0.17	0.19	
17 $Pw^2 = Pt^2+Fw$	154.7	137.2	118.0	104.6	
18 $Ps^2 = e^sPw^2$	236.6	209.5	179.8	159.4	
19 Ps	486.4	457.7	424.1	399.2	
20 P = (Pt+Ps) / 2	439.8	413.9	383.6	361.2	
21 Pr = (P / Pcr)	0.65	0.62	0.57	0.54	
22 Tr = (T / Tcr)	1.59	1.59	1.59	1.59	
23 Z (Table XI)	0.947	0.950	0.953	0.956	

Company Yates Petroleum Corp
Well ALLISON CQ FEDERAL #7
Location E 23-19S-24E

County Eddy
Date 9-29-1999