

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

Adopted 9-1-65

DATE 8/25/83

COMPANY Yates Petroleum Corporation LEASE Powers "OL" Federal WELL NO. 6

LOCATION: Unit K Section 27 Township 6S Range 25E

L 3640.0 H 3640.0 L/H 1.000 G .643 %CO₂ .03 %N₂ 6.67 %H₂S 0.00

d 1.995 Fr .017777 GH 2340.5 Pcr 659.5 Tcr 351.5

LINE		1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1	Qm	.225	.267	.338	.376	0.000
2	Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3	Ts(B.H.°R)	550.0	550.0	550.0	550.0	0.0
4	T=(Tw+Ts)/2	536.0	536.0	536.0	536.0	0.0
5	Z(Est.)	.876	.883	.892	.911	0.000
6	TZ	469.7	473.3	478.3	488.5	0.0
7	GH/TZ	4.983	4.945	4.893	4.791	0.000
8	e ^s (Table XIV)	1.205	1.204	1.201	1.197	0.000
9	1-e ^{-s} (Table XIV)	.170	.169	.168	.164	0.000
10	Pt	875.2	823.2	752.2	613.2	0.0
11	Pt ² /1000	766.0	677.7	565.8	376.0	0.0
12	Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13	Fc=FrTZ	8.350	8.414	8.503	8.684	0.000
14	FcQm	1.877	2.250	2.873	3.266	0.000
15	L/H(FcQm) ²	3.525	5.062	8.252	10.667	0.000
16	Fw=L/H(FcQm) ² (1-e ^{-s})	.601	.857	1.383	1.754	0.000
17	Pw ² =Pt ² +Fw	766.6	678.5	567.2	377.8	0.0
18	Ps ² =e ^s Pw ²	924.1	816.8	681.4	452.1	0.0
19	Ps	961.3	903.7	825.5	672.4	0.0
20	P=(Pt+Ps)/2	918.2	863.5	788.8	642.8	0.0
21	Pr=(P/Pcr)	1.39	1.31	1.20	.97	0.00
22	Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23	Z(Table XI)	.876	.883	.892	.911	0.000