

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

Adopted 9-1-65

DATE 11/6/84

COMPANY Yates Petroleum Corporation LEASE Margaret RQ State WELL NO. 3

LOCATION: Unit P Section 36 Township 4S Range 24E

L 3595.0 H 3595.0 L/H 1.000 G .653 %CO₂ .01 %N₂ 6.27 %H₂S 0.00

d 1.995 Fr .017777 GH 2347.5 Pcr 659.7 Tcr 355.9

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.299	.435	.716	.785	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	562.0	562.0	562.0	562.0	0.0
4 T=(Tw+Ts)/2	542.0	542.0	542.0	542.0	0.0
5 Z(Est.)	.865	.871	.883	.888	0.000
6 TZ	468.8	472.3	478.8	481.4	0.0
7 GH/TZ	5.008	4.970	4.903	4.877	0.000
8 e ^s (Table XIV)	1.207	1.205	1.202	1.201	0.000
9 1-e ^{-s} (Table XIV)	.171	.170	.168	.167	0.000
10 Pt	961.2	908.2	814.2	778.2	0.0
11 Pt ² /1000	923.9	824.8	662.9	605.6	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.333	8.397	8.512	8.557	0.000
14 FcQm	2.490	3.655	6.092	6.715	0.000
15 L/H(FcQm) ²	6.199	13.357	37.110	45.096	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.061	2.271	6.232	7.537	0.000
17 Pw ² =Pt ² +Fw	925.0	827.1	669.2	613.1	0.0
18 Ps ² =e ^s Pw ²	1116.0	996.5	804.2	736.2	0.0
19 Ps	1056.4	998.3	896.8	858.0	0.0
20 P=(Pt+Ps)/2	1008.8	953.2	855.5	818.1	0.0
21 Pr=(P/Pcr)	1.53	1.44	1.30	1.24	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.865	.871	.883	.888	0.000