

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

Adopted 9-1-65

11/7/83
DATE 11/08/82

COMPANY Yates Petroleum Corporation LEASE Redman "OY" State WELL NO. 5

LOCATION: Unit F Section 35 Township 4S Range 24E

L 3618.0 H 3618.0 L/H 1.000 G .679 %O₂ 3.81 %N₂ 5.21 %H₂S 0.00

d 1.995 Fr .017777 GH 2456.6 Pcr 677.0 Tcr 364.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.692	.769	.827	.917	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	560.0	560.0	560.0	560.0	0.0
4 T=(Tw+Ts)/2	541.0	541.0	541.0	541.0	0.0
5 Z(Est.)	.879	.885	.890	.896	0.000
6 TZ	475.8	478.6	481.3	484.8	0.0
7 GH/TZ	5.163	5.133	5.104	5.067	0.000
8 e ^{-S} (Table XIV)	1.214	1.212	1.211	1.209	0.000
9 1-e ^{-S} (Table XIV)	.176	.175	.174	.173	0.000
10 Pt	784.2	748.2	713.2	668.2	0.0
11 Pt ² /1000	615.0	559.8	508.7	446.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.458	8.513	8.561	8.619	0.000
14 FcQm	5.855	6.546	7.076	7.906	0.000
15 L/H(FcQm) ²	34.277	42.845	50.071	62.504	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-S})	6.034	7.498	8.718	10.816	0.000
17 Pw ² =Pt ² +Fw	621.0	567.3	517.4	457.3	0.0
18 Ps ² =e ^{-S} Pw ²	753.7	687.6	626.4	553.0	0.0
19 Ps	868.1	829.2	791.5	743.6	0.0
20 P=(Pt+Ps)/2	826.2	788.7	752.3	705.9	0.0
21 Pr=(P/Pcr)	1.22	1.17	1.11	1.04	0.00
22 Tr=(T/Tcr)	1.49	1.49	1.49	1.49	0.00
23 Z(Table XI)	.879	.885	.890	.896	0.000