

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Gulf Oil Expl. & Prod. Co., LEASE 'Eddy GK Sec. Com WELL NO. 2 DATE 8/1/84

LOCATION: Unit 6522 Section 19 Township 18 Range 25

L 6522 H 6522 L/H 1.000 G .7769 % CO₂ 2.236 % N₂ 10.570 % H₂S

d 1.995 F_r 1018231 GH 5067 P_{cr} 655 T_{cr} 385
1st Rate 2nd Rate 3rd Rate 4th Rate

LINE	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd
1 Q _m								
2 T _w (W.H. °R)	162	162	185	185	218	218	250	250
3 T _s (B.H. °R)	534	534	534	534	534	534	534	534
4 T = $\frac{T_w + T_s}{2}$	599	599	599	599	599	599	599	599
5 Z (Est.)	566.5	566.5	566.5	566.5	566.5	566.5	566.5	566.5
6 TZ	.824	.808	.835	.820	.848	.835	.865	.852
7 GH/TZ	466.8	457.7	473.0	464.5	480.4	473.0	490.0	482.7
8 e ^s (Table XIV)	10.855	11.070	10.712	10.908	10.548	10.712	10.340	10.498
9 1 - e ^s (Table XIV)	1.502	1.515	1.494	1.505	1.485	1.494	1.474	1.482
10 P _t	.334	.340	.331	.336	.327	.331	.321	.325
11 P _t ² /1000	1108.2	1108.2	1025.2	1025.2	928.2	928.2	813.2	813.2
12 F _r (Table XV)	1228.1	1228.1	1051.0	1051.0	861.6	861.6	661.3	661.3
13 F _c = F _r TZ	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
14 F _c Q _m	8.5102	8.3449	8.6238	8.4688	8.7580	8.6238	8.7993	8.7993
15 L/H (F _c Q _m) ²	1.3786	1.3519	1.5954	1.5667	1.9092	1.8800	2.2334	2.1998
16 F _w = L/H (F _c Q _m) ² (1 - e ^{-s})	1.9007	1.8276	2.5453	2.4547	3.6452	3.5343	4.7881	4.8393
17 P _w ² = P _t ² + F _w	.6360	.6209	.8420	.8241	1.1908	1.1692	1.6033	1.5748
18 P _s ² = e ^s P _w ²	1228.7	1228.7	1051.9	1051.9	862.7	862.7	662.9	662.9
19 P _s	1846.1	1864.0	1571.9	1583.3	1281.3	1289.2	976.9	982.7
20 P = $\frac{P_t + P_s}{2}$	1358.7	1364.2	1253.7	1258.3	1131.9	1135.4	988.4	991.3
21 P _r = (P/P _{cr})	1233.4	1236.2	1139.5	1141.8	1030.1	1031.8	900.8	902.2
22 T _r = (T/T _{cr})	1.88	1.89	1.74	1.74	1.57	1.58	1.38	1.38
23 Z (Table XI)	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47
	.808	.807	.820	.820	.835	.834	.852	.852