C-122D
Adopted 9-1-65

WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

COMPANY Doyle Hartman LEASE Jones 2 WELL NO. #1 DATE 8/29/75

LOCATION: Unit F Section 2 Township 26 Range 37

L 2796 H 2796 L/H 1.000 G .650 % CO_2 % N_2 % H_2S

d F_r .0061251 GH 1817 P_{cr} 670 (TABLE IX & X) T_{cr} 375 (TABLE IX & X)

LINE	1st	2nd	1st	2nd	1st	2nd	1st	2nd		
1 Q_m	.040	.040	.063	.063	.076	.076	.137	.137		
2 T_w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T_s (B.H. °R)	545	545	545	545	545	545	545	545		
4 $T = (\frac{T_w + T_s}{2})$	539.5	539.5	539.5	539.5	539.5	539.5	539.5	539.5		
5 Z (Est.)	.917	.915	.937	.937	.959	.958	.970	.968		
6 TZ	494.7	493.6	505.5	505.5	517.4	516.8	523.3	522.2		
7 GH/TZ	3.673	3.681	3.594	3.594	3.512	3.516	3.472	3.479		
8 e^s (Table XIV)	1.148	1.148	1.144	1.144	1.141	1.141	1.139	1.139		
9 $1-e^{-s}$ (Table XIV)	.129	.129	.126	.126	.123	.124	.122	.122		
10 P_t	493.2	493.2	357.2	357.2	233.2	233.2	183.2	183.2		
11 $P_t^2/1000$	243.2	243.2	127.6	127.6	54.4	54.4	33.6	33.6		
12 F_r (Table XV)	.0061251	.0061251	.0061251	.0061251	.0061251	.0061251	.0061251	.0061251		
13 $F_c = F_r$ TZ	3.030	3.024	3.096	3.096	3.169	3.166	3.205	3.199		
14 $F_c Q_m$	.12	.12	.20	.20	.24	.24	.44	.44		
15 $L/H (F_c Q_m)^2$	.015	.015	.038	.038	.057	.058	.193	.192		
16 $F_w = L/H (F_c Q_m)^2 (1-e^{-s})$	.002	.002	.005	.005	.007	.007	.024	.023		
17 $P_w^2 = P_t^2 + F_w$	243.2	243.2	127.6	127.6	54.4	54.4	33.6	33.6		
18 $P_s^2 = e^s P_w^2$	279.2	279.3	146.0	146.0	62.0	62.1	38.3	38.3		
19 P_s	528.4	528.4	382.1	382.1	249.1	249.1	195.6	195.6		
20 $P = (\frac{P_t + P_s}{2})$	510.8	510.8	369.7	369.7	241.1	241.2	189.4	189.4		
21 $P_r = (P/P_{cr})$	.76	.76	.55	.55	.36	.36	.28	.28		
22 $T_r = (T/T_{cr})$	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44		
23 Z (Table XVI)	[illegible]	[illegible]	.937	.937	.959	.959	.970	[illegible]		