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

C-122D
Adopted 9-1-65

COMPANY Phillips Petro. Co. LEASE Mahon A WELL NO. 1 DATE 4/4/74

LOCATION: Unit _____ Section 2 Township 9S Range 28E

L 12,130 H 12,130 L/H 1.000 G .588 (Assd) % CO_2 _____ % N_2 _____ % H_2S _____

d 2.441 F_r .010763 GH 7132 P_{cr} 672 (TABLE IX & X) T_{cr} 350 (TABLE IX & X)

LINE	1ST		2ND		3RD		4TH			
1 Q_m	.392	.392	.851	.851	1.663	1.663	1.715	1.715		
2 T_w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T_s (B.H. °R)	655	655	655	655	655	655	655	655		
4 $T = (\frac{T_w + T_s}{2})$	594.5	594.5	594.5	594.5	594.5	594.5	594.5	594.5		
5 Z (Est.)	.855	.865	.857	.859	.867	.859	.871	.862		
6 TZ	508.3	514.2	509.5	510.7	515.4	510.7	517.8	512.5		
7 GH/TZ	14.031	13.87	14.00	13.97	13.84	13.97	13.77	13.92		
8 e^s (Table XIV)	1.692	1.6822	1.690	1.688	1.680	1.688	1.676	1.685		
9 $1-e^{-s}$ (Table XIV)	.4091	.4055	.4084	.4077	.4048	.4077	.4034	.4066		
10 P_t	2658.2	2658.2	2453.2	2453.2	1953.2	1953.2	1808.2	1808.2		
11 $P_t^2/1000$	7066.03	7210.3	6018.2	6018.2	3815.0	3815.0	3269.6	3269.6		
12 F_r (Table XV)	.010763	.010763	.010763	.010763	.010763	.010763	.010763	.010763		
13 $F_c = F_r TZ$	5.471	5.535	5.484	5.496	5.548	5.496	5.573	5.516		
14 $F_c Q_m$	2.14	2.17	4.83	4.84	9.23	9.14	9.56	9.46		
15 $L/H (F_c Q_m)^2$	4.60	4.71	23.34	23.45	85.11	83.55	91.36	89.48		
16 $F_w = L/H(F_c Q_m)^2(1-e^{-s})$	1.88	1.91	9.53	9.56	34.45	34.06	36.85	36.38		
17 $P_w^2 = P_t^2 + F_w$	7067.9	7212.2	6027.7	6027.7	3849.4	3849.1	3306.4	3306.0		
18 $P_s^2 = e^s P_w^2$	11962.0	12132.2	10189.0	10176.6	6467.7	6498.3	5542.1	5571.3		
19 P_s	3458.6	3483.1	3192.0	3190.1	2543.2	2549.2	2354.2	2360.4		
20 $P = (\frac{P_t + P_s}{2})$	3058.4	3070.7	2822.6	2821.6	2248.2	2251.2	2081.2	2084.3		
21 $P_r = (P/P_{cr})$	4.55	4.56	3.65	4.20	2.91	3.35	2.69	3.10		
22 $T_r = (T/T_{cr})$	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70		
23 Z (Table XI)										

One copy to be filed in District Office (Work may necessitate)