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

C-122D
Adopted 9-1-65

COMPANY YPC LEASE La Cama Can WELL NO. 1 DATE 2-3-78

LOCATION: Unit F Section 20 Township 18-S Range 25E

L 6926 H 6926 L/H 1.000 G 0.730 % CO_2 0.55 % N_2 0.24 % H_2S N.T

3/8" — 6861 (348) = 27307
" — 63 (1662) = 1037
6924 = 28341

d 2.0232 F_r .17118 GH 5054.5 P_{cr} 670 (TABLE IX & X) T_{cr} 400 (TABLE IX & X)

LINE	S1	1	2	3	4	S1	1	2	3	4
1 Q_m	—	0.926	1.227	1.575	1.859					
2 T_w (W.H. °R)	503	508	512	515	518					
3 T_s (B.H. °R)	583	582	582	581	580					
4 $T = (\frac{T_w + T_s}{2})$	543	545	546	548	549	543				
5 Z (Est.)	.675	.680	.684	.694	1703	.673				
6 TZ	366.525	370.60	373.464	380.312	385.947	365.439				
7 GH/TZ	13.79	13.639	13.534	13.290	13.096	13.831				
8 e^s (Table XIV)	1.6772	1.6677	1.6612	1.6461	1.6341	1.6798				
9 $1-e^{-s}$ (Table XIV)		0.4004	0.3980	0.3925	0.3881					
10 P_t	1853.2	1733.2	1669.2	1577.2	1485.2	1853.2				
11 $P_t^2/1000$	3434.3	3004.0	2786.2	2487.6	2205.8	3434.3				
12 ~~F_r (Table XV)~~ $S=.0375\frac{H}{T_c}$	0.51713	.51145	.50753	.49839	.49111	0.51867				
13 $F_c = F_r TZ$		6.3439	6.393	6.510	6.6066					
14 $F_c Q_m$		5.8765	7.844	10.254	12.282					
15 $L/H (F_c Q_m)^2$		34.51	61.53	105.13	150.85					
16 $F_w = L/H (F_c Q_m)^2 (1-e^{-s})$		13.8	24.5	41.3	58.5					
17 $P_w^2 = P_t^2 + F_w$		3017.8	2810.7	2528.9	2264.3					
18 $P_s^2 = e^s P_w^2$	5760	5032.8	4669.1	4162.8	3700.1	5769				
19 P_s	2400	2243.4	2160.8	2040.3	1923.6	2401.9				
20 $P = (\frac{P_t + P_s}{2})$	2126.6	1988.3	1915.0	1808.7	1704.4	2127.5				
21 $P_r = (P/P_{cr})$	3.17	2.97	2.86	2.70	2.544	3.175				
22 $T_r = (T/T_{cr})$	1.3575	1.3625	1.365	1.370	1.3725	1.3575				
23 Z (Table XI)	.673	.680	.684	.694	.703	.673				

One copy to be filed in District Office (Work copy acceptable)