C-122D
Adopted 9-1-65

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

PANY YPC LEASE Federal "GC" WELL NO. 1 DATE 3-5-77

CATION: Unit P Section 32 Township 17-S Range 25-E

7844 H 7844 L/H G .6342 % CO_2 0.84 % N_2 0.64 % H_2S N.I

7790(3.98)=31004
154(16) = 2464
7844 | 35463

d avg 2.0656' F_r 0.016717 GH 4975

670.5 | 369.6
L 3.3 | − .8
− .6 | − 1.9

P_{cr} 673 TABLE IX & X T_{cr} 367 TABLE IX & X

E		1	2	3	4		1	2	3	4
Q_m	51	0.259	0.367	0.458	0.542	51	0.259	0.367	0.458	0.542
T_w (W.H. °R)	511	518	523	526	528					
T_s (B.H. °R)	592	590	589	588	588					
$T = (\frac{T_w + T_s}{2})$	552.5	554	556	557	558		554	556	557	558
Z (Est.)	.776	.78	.80	.815	.832		.7805	.799		.8315
TZ	428.74	432.12	444.80	453.955	464.256		432.397	444.244		463.977
GH/TZ	11.604	11.513	11.1848	10.959	10.716		11.5056	11.1988		10.7225
e^s (Table XIV)	1.5451	1.5399	1.5210	1.5082	1.4945		1.5394	1.5218		1.4949
$1-e^{-s}$ (Table XIV)		0.3506	0.3425	0.3370	0.3309		0.3504	0.3429		0.3311
P_t	2332.2	1825.2	1553.2	1362.2	1211.2		1825.2	1553.2		1211.2
$P_t^2/1000$	5439.16	3331.35	2412.4	1855.59	1467.0		3331.35	2412.43		1467.0
~~F_r (Table XV)~~ $S=.0375\frac{GH}{TZ}$	.43514	.43174	.41943	.41097	.40185		.43146	.41995		.40209
$F_c = F_r TZ$		7.0077	7.2133	7.3618	7.5288		7.0122	7.2043		7.5243
$F_c Q_m$		1.815	2.647	3.372	4.0806		1.816	2.644		4.078
$L/H (F_c Q_m)^2$		3.294	7.008	11.368	16.652		3.298	6.991		16.632
$F_w = L/H (F_c Q_m)^2 (1-e^{-s})$		1.155	2.40	3.831	5.510		1.156	2.40		5.507
$P_w^2 = P_t^2 + F_w$		3332.51	2414.80	1859.42	1472.51		3332.511	2414.83		1472.51
$P_s^2 = e^s P_w^2$	8404.0	5131.73	3672.9	2804.4	2200.7		5130.07	3674.88		2201.76
P_s	2899.2	2265.3	1916.48	1674.6	1483.5		2265.0	1917.0		1483.67
$P = (\frac{P_t + P_s}{2})$	2615.7	2045.3	1734.8	1518.4	1347.3		2045.1	1735.1		1347.4
$P_r = (P/P_{cr})$	3.887	3.039	2.578	2.256	2.002		3.039	2.578		2.002
$T_r = (T/T_{cr})$	1.505	1.5095	1.5150	1.5177	1.5204		1.5095	1.5150		1.5204
Z (Table XI)	.776	.7805	.799	.815	.8315		0.7805	0.799		0.8315

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