

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_w)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

COMPANY Made One LEASE Liaison Fed Con. WELL NO. #1 DATE 4-8-82

LOCATION: Unit N Section 3 Township 9 S Range 31 E
L 9896 H 9896 L/H 1.000 G .771 % CO₂ 8.10 % N₂ 1.84 % H₂S NIL

GH 7630 P_{cr} 697 T_{cr} 395
TABLE IX & X
1st RATE 2nd RATE 3rd RATE 4th RATE

INE	1	2	3	4	5	6	7	8
1 T_w (W.H. °R)	534	534	534	534	534	534	534	534
2 T_s (B.H. °R)	633	633	633	633	633	633	633	633
3 $T = (\frac{T_w}{2} + \frac{T_s}{2})$	583.5	583.5	583.5	583.5	583.5	583.5	583.5	583.5
4 Z (Est.)	.771	.761	.768	.761	.764	.762	.761	.767
5 TZ	45°	444	448	444	446	445	444	448
6 GH/TZ	16.960	17.183	17.026	17.183	17.116	17.160	17.183	17.049
7 e^S (Table XIV)	1.8889	1.9047	1.8936	1.9047	1.8999	1.9032	1.9047	1.8951
8 P_f or P_s	2931.2	2931.2	2834.2	2834.2	2723.2	2723.2	2437.2	2437.2
9 P_f^2 or P_s^2	8591.9	8591.9	8032.7	8032.7	7415.8	7415.8	5939.9	5939.9
10 $P_c^2 = P_f^2 / e^S$ or $P_w^2 = P_s^2 / e^S$	4548.6	4510.7	4241.9	4217.1	3903.1	3896.6	3118.5	3134.2
11 P_c or P_w	2132.7	<u>2123.8</u>	2059.6	<u>2053.6</u>	1975.6	<u>1973.9</u>	1765.9	<u>1770.4</u>
12 $P = (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	2531.9	2527.5	2446.9	2443.9	2349.4	2348.6	2101.6	2103.8
13 $P_r = (P / P_{cr})$	3.63	3.63	3.51	3.51	3.37	3.37	3.02	3.02
14 $T_r = (T / T_{cr})$	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48
15 Z (Table XI)	.761	.761	.761	.761	.762	.762	.767	.767