

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 Conoco, Inc. LEASE Tuesday Federal WELL NO. 1 DATE 4-2-85
LOCATION: Unit M Section 34 Township 19S Range 29E
L 11,084' H 11,084' L/H 1,000 G 0.665 % CO₂ 0.32 % N₂ 0.78 % H₂S —

GH 7,371 P_{cr} 670 T_{cr} 380
TABLE IX & X

LINE		3rd ₁	1st ₂	2nd ₃	3rd ₄	1st ₅	2nd ₆	3rd ₇	8
1	T _w (W.H. °R)	532	533	533	533	535	535	535	
2	T _s (B.H. °R)	693	693	693	693	693	693	693	
3	T _r ($\frac{T_w + T_s}{2}$)	613	613	613	613	614	614	614	
4	Z (Est.)	0.936	0.974	0.930	0.929	0.963	0.923	0.921	
5	TZ	574	597	570	569	591	567	565	
6	GH/TZ	12.841	12.347	12.932	12.954	12.472	13.000	13.046	
7	e ^s (Table XIV)	1.619	1.589	1.624	1.625	1.596	1.628	1.631	
8	P _f or P _s	5110.2	5017.2	5017.2	5017.2	4859.2	4859.2	4859.2	
9	P _f ² or P _s ²	26114.1	25172.3	25172.3	25172.3	23611.8	23611.8	23611.8	
10	P _c ² = P _f ² /e ^s or P _w ² = P _s ² /e ^s	16129.8	15841.6	15500.2	15490.6	14794.4	14503.6	14476.9	
11	P _c or P _w	4016	3980	3937	3936	3844	3808	3805	
12	P _r = ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_f}{2}$)	4563.1	4498.6	4477.1	4476.6	4352.6	4333.6	4332.1	
13	P _r = (P/P _{cr})	6.81	6.71	6.68	6.68	6.50	6.47	6.47	
14	T _r = (T/T _{cr})	1.61	1.61	1.61	1.61	1.62	1.62	1.62	
15	Z (Table XI)	0.936	0.930	0.929	0.929	0.923	0.921	0.921	