

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC LEASE Anderson CS State Co WELL NO. 1-X DATE 10-2-79

LOCATION: Unit G Section 14 Township 18S Range 24E

L 5125 H 5125 L/H 1.000 G 694 % CO₂ 0.70 % N₂ 1.34 % H₂S N/I

$\frac{238}{43} \frac{4981(3.98) + 14824}{144(16.0) + 2304} = 2304$

$\frac{5125(4.317) + 22128}{2304} = 22128$

F_i 2.0779 F_r 0.15004 GH 3556.7 P_{CT} 670 T_{CT} 385

TABLE IX & X

LINE	ST	1	2	3	4	S1	1	2	3	4
1 Q _m	-	0.114	0.161	0.238	0.345		0.114	0.161	0.238	0.345
2 T _w (W.H. °R)	550	550	550	551	552					
3 T _s (B.H. °R)	570	569	569	568	568					
4 T = $(\frac{T_w + T_s}{2})$	560	559.5	559.5	560	560		559.5	559.5	560	560
5 Z (Eq.)	.760	.770	.782	.814	.913				.8125	.915
6 TZ	425.05	430.82	437.53	455.84	511.28				455.00	512.4
7 GH/TZ	8.2679	8.256	8.129	7.803	6.9565				7.8169	6.9413
8 e ^s (Table XIV)	1.3686	1.3629	1.3564	1.3399	1.2981				1.3406	1.2973
9 1 - e ^s (Table XIV)		0.2663	0.2628	0.2532	0.2296				0.2541	0.2292
10 P _i	1654.2	1516.2	1400.2	1152.2	497.2				1152.2	497.2
11 P _i 2/1000	2736.4	2298.86	1960.6	1327.56	227.72				1327.56	227.72
12 P_i 2/1000 X $\frac{GH}{2304} = 0.3757$	0.31379	0.30959	0.30484	0.29259	0.26087				0.29313	0.26030
13 F _c = F _i TZ		6.464	6.565	6.8394	7.6712				6.8268	7.688
14 F _c Q _m		0.737	1.057	1.6278	2.6465				1.6248	2.652
15 L/H (F _c Q _m) ²		0.543	1.117	2.65	7.003				2.64	7.035
16 F _w = L/H (F _c Q _m) ² (1 - e ^s)		0.15	0.3	0.67	1.61				0.67	1.61
17 P _w ² = P _i ² + F _w		2299.01	1960.9	1328.23	229.33				1328.23	229.33
18 P _s ² = e ^s P _w ²	3745.0	3133.3	2659.8	1799.7	297.7				1780.6	297.5
19 P _s	1935.2	1770.1	1630.9	1334.0	545.6				1334.4	545.4
20 P = $(\frac{P_i + P_s}{2})$	1794.7	1643.2	1575.5	1243.1	511.4				1243.3	511.3
21 P _r = (P/P _{CT})	2.679	2.452	2.262	1.855	0.763				1.856	0.762
22 T _r = (T/T _{CT})	1.4545	1.4532	1.4532	1.4545	1.4545				1.4545	1.4545
23 Z (Table XI)	.760	0.770	0.782	0.8125	.915				0.8125	.915