

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Gulf Oil Corp. LEASE East White Ranch WELL NO. 1 DATE 11-22-82

LOCATION: Unit 9775 Section 14 Township 13s Range 30e

L 9775 H 9775 L/H 1.000 G .7359 % CO₂ .342 % N₂ 2.920 % H₂S

d 1.995 F_r .018231 GH 7193 P_{cr} 667 T_{cr} 405
TABLE IX & X TABLE IX & X

LINE	1st Rate		2nd Rate		3rd Rate		4th Rate	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
1 Q _m	.150	.150	.246	.246	.425	.425	.759	.759
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	632	632	632	632	632	632	632	632
4 T = $\frac{(T_w + T_s)}{2}$	583	583	583	583	583	583	583	583
5 Z (Est.)	.815	.791	.848	.828	.915	.901	.949	.939
6 TZ	475.1	461.2	494.4	482.7	533.4	525.3	553.3	547.4
7 GH/TZ	15.139	15.598	14.549	14.901	13.484	13.694	13.001	13.139
8 e ^s (Table XIV)	1.764	1.795	1.726	1.749	1.658	1.671	1.628	1.637
9 1-e ^s (Table XIV)	.433	.443	.421	.428	.397	.402	.386	.389
10 P _t	1203.2	1203.2	953.2	953.2	508.2	508.2	293.2	293.2
11 P _t ² /1000	1447.7	1447.7	908.6	908.6	258.3	258.3	86.0	86.0
12 F _r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
13 F _c = F _r TZ	8.662	8.407	9.013	8.801	9.725	9.576	10.087	9.980
14 F _c Q _m	1.299	1.261	2.217	2.165	4.133	4.070	7.656	7.575
15 L/H (F _c Q _m) ²	1.688	1.590	4.916	4.687	17.084	16.565	58.610	57.382
16 F _w = L/H (F _c Q _m) ² (1-e ^{-s})	.731	.704	2.067	2.006	6.780	6.653	22.615	22.324
17 P _w ² = P _t ² + F _w	1448.4	1448.4*	910.7	910.6*	265.0	264.9*	108.6	108.3*
18 P _s ² = e ^s P _w ²	2555.3	2599.6	1571.5	1592.2	439.5	442.7	176.8	177.2
19 P _s	1598.5	1612.3	1253.6	1261.8	662.9	665.4	420.5	421.0
20 P = $\frac{(P_t + P_s)}{2}$	1400.9	1407.8	1103.4	1107.5	585.6	586.8	356.8	357.1
21 P _r = (P/P _{cr})	2.10	2.11	1.65	1.66	.88	.88	.53	.54
22 T _r = (T/T _{cr})	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
23 Z (Table XI)	.791	.790	.828	.827	.901	.901	.939	.938