

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

COMPANY Gulf Oil Exp. Prod. LEASE Eddy "FT" St. WELL NO. 1 DATE 10/17/83

LOCATION: Unit

Section

Township

Range

L 10660

H 10660

L/H 1000

Gm 816

% CO₂ 2.658

% N₂ 15.828

% H₂S

d 1.995 F_r 0.018231 GH 8699

1st Rate

2nd Rate

3rd Rate

P_{CT} 665

T_{CT} 431

TABLE IX & X

LINE	1 st Trial	2 nd Trial	1 st Trial	2 nd Trial	1 st Trial	2 nd Trial	1 st Trial	2 nd Trial
1 Q _m								
2 T _w (W.H. °R)	.216	.216	.264	.264	.389	.389	.457	.457
3 T _s (B.H. °R)	.534	.534	.534	.534	.534	.534	.534	.534
4 T = $(\frac{T_w + T_s}{2})$	.641	.641	.641	.641	.641	.641	.641	.641
5 Z (Est.)	.587.5	.587.5	.587.5	.587.5	.587.5	.587.5	.587.5	.587.5
6 TZ	.762	.760	.692	.750	.680	.728	.670	.703
7 GH/TZ	.450.6	.446.5	.406.6	.440.6	.399.5	.427.7	.393.6	.413.0
8 e ^s (Table XIV)	.19.305	.19.483	.21.397	.19.742	.21.775	.20.339	.22.100	.21.062
9 1-e ^s (Table XIV)	.2.076	.2.231	.2.097	.2.263	.2.144	.2.290	.2.203	
10 P _t	.1515	.1518	.1552	.1523	.1558	.1534	.1563	.1546
11 P _t 2/1000	.2878.2	.2878.2	.2728.2	.2728.2	.2540.2	.2540.2	.2303.2	.2303.2
12 F _r (Table XV)	.8284.0	.8284.0	.7443.1	.7443.1	.6452.6	.6452.6	.5304.7	.5304.7
13 F _c = F _r TZ	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
14 F _c Q _m	.8.215	.8.140	.7.412	.8.033	.7.283	.7.797	.7.176	.7.530
15 L/H (F _c Q _m) ²	.1.774	.1.758	.1.957	.2.121	.2.833	.3.033	.3.280	.3.441
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	.1.622	.1.603	.2.112	.2.352	.4.479	.4.909	.6.059	.6.446
17 P _w ² = P _t ² + F _w	.8285.7	.8285.6	.7445.2	.7445.4	.6457.1	.6457.5	.5310.8	.5311.2
18 P _s ² = e ^s P _w ²	.17089.4	.17203.7	.16609.3	.15610.4	.13845.5	.12164.0	.11700.8	
19 P _s	.4133.9	.4147.7	.4075.4	.3951.0	.3822.4	.3720.9	.3487.7	.3420.6
20 P = $(\frac{P_t + P_s}{2})$	.3506.1	.3512.9	.3401.8	.3339.6	.3181.3	.3130.6	.2895.4	.2861.9
21 P _r = (P/P _{cr})	.5.27	.5.28	.5.12	.5.02	.4.78	.4.71	.4.35	.4.30
22 T _r = (T/T _{cr})	.1.36	.1.36	.1.36	.1.36	.1.36	.1.36	.1.36	.1.36
23 Z (Table XI)	.760	.760	.750	.743	.728	.724	.703	.701