

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (P_c or P_w)
FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

FORM C-122F

COMPANY MARATHON OIL

LEASE :FREEDMAN WELL NO. :ST. 1

DATE 2/1/99

UNIT

SECTION :

TWN SHP :

RANGE :

L

10704

H : 10704

L/H : 1

G/GMIX : 0.6280

CO2 : 0.627

N2 : 0.401

H2S :

GH : 6722.1

PCR : 674

TCR : 361

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
3	T=(Tw+Ts/2)	587.5	587.5	587.5	587.5	587.5	587.5	587.5	587.5
4	Z (EST.)	0.914	0.834	0.846	0.829	0.834	0.821	0.820	0.815
5	TZ	537	490	497	487	490	482	482	479
6	GH/TZ	12.515	13.725	13.519	13.803	13.726	13.936	13.954	14.040
7	eS(TABLE XIV)	1.599	1.673	1.660	1.678	1.673	1.686	1.688	1.693
8	Pf or Ps	3583.92	3583.92	3480.46	3480.46	3207.39	3207.39	2800.83	2800.83
9	Pf2 or Ps2	12844.5	12844.5	12113.6	12113.6	10287.4	10287.4	7344.6	7344.6
10	$P_c = P_f / eS$ or $P_w = P_{s2} / eS$	8033.4	7677.0	7296.3	7219.1	6148.3	6100.3	4648.6	4633.5
11	P_c or P_w	2834	2771	2701	2687	2480	2470	2156	2153
12	$P = (P_w + P_s / 2) \text{ or } (P_c + P_f / 2)$	3209	3177	3091	3084	2843	2839	2478	2477
13	$P_r = (P / P_{cr})$	4.76	4.71	4.59	4.58	4.22	4.21	3.68	3.67
14	Tr(T/Tcr)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
15	Z (TABLE XI)	0.834	0.832	0.829	0.829	0.821	0.821	0.815	0.815

PW 1 : 2770.7 PW 2 : 2686.8 PW 3 : 2469.9 PW 4 : 2152.6