

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 SANTA FE ENERGY LEASE : HACKBERRY WELL NO. : 18FED#1 DATE : 12/5/97
UNIT : SECTION : 18 TOWNSHIP : 19 RANGE : 31
L 12052 H : 12052 L/H : 1 G/GMIX : 0.6740
CO2 : 0.7 N2 : 0.43 H2S :
GH : 8123.0 PCR : 666 TCR : 378

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)	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5
3	$T = (T_w + T_s / 2)$	594.3	594.3	594.3	594.3	594.3	594.3	594.3	594.3
4	Z (EST.)	0.922	0.828	0.850	0.819	0.842	0.814	0.832	0.807
5	TZ	548	492	505	487	500	484	494	480
6	GH/TZ	14.827	16.517	16.085	16.684	16.241	16.800	16.427	16.931
7	eS(TABLE XIV)	1.744	1.858	1.828	1.869	1.839	1.878	1.852	1.887
8	P_f or P_s	3938.56	3938.56	3807.93	3807.93	3686.19	3686.19	3535.63	3535.63
9	P_{f2} or P_{s2}	15512.3	15512.3	14500.3	14500.3	13588.0	13588.0	12500.7	12500.7
10	$P_{c2} = P_f / eS$ or $P_{w2} = P_{s2} / eS$	8896.2	8350.0	7932.5	7756.3	7390.1	7236.8	6751.4	6625.2
11	P_c or P_w	2983	2890	2816	2785	2718	2690	2598	2574
12	$P = (P_w + P_s / 2)$ or $(P_c + P_f / 2)$	3461	3414	3312	3296	3202	3188	3067	3055
13	$P_r = (P / P_{cr})$	5.20	5.13	4.97	4.95	4.81	4.79	4.61	4.59
14	$T_r(T / T_{cr})$	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57
15	Z (TABLE XI)	0.828	0.825	0.819	0.818	0.814	0.813	0.807	0.807

PW 1 : 2889.6 PW 2 : 2785.0 PW 3 : 2690.1 PW 4 : 2574.0