

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

Form C-122F
Adopted 9-1-65

COMPANY United Natural Gas LEASE 51.16 "N" Cam WELL NO. 1 DATE 12-21-84
LOCATION: Unit 1 Section 16 Township 10S Range 29E

H 1,153 L/H 1,000 G 1,709 % CO₂ .33 % N₂ .792 % H₂S
GH 7578 P_{cr} 668 T_{cr} 395

date 1 date 2 date 3 date 4

	1	2	3	4	5	6	7	8
1 T _w (W.H., °R)	534	534	534	534	534	534	534	534
2 T _g (R.H., °R)	641	641	641	641	641	641	641	641
3 T ($\frac{T_w + T_g}{2}$)	588	588	588	588	588	588	588	588
4 Z (List.)	1.005	.945	.964	.910	.908	.862	.853	.815
5 T _Z	590.4	555.2	566.5	539.6	535.5	506.4	501	477.7
6 GH/T _Z	10.834	13.649	13.380	14.174	14.206	14.946	15.115	15.811
7 e ^G (Table XIV)	1.618	1.668	1.652	1.701	1.704	1.753	1.765	1.810
8 P _h or P _s	5491.2	5491.2	5109.2	5109.2	4522.2	4522.2	3898.2	3898.2
9 P _h ² or P _s ²	30153.3	30153.3	26103.9	26103.9	20450.3	20450.3	15194.9	15194.9
10 P _h ² - P _h ² /es or P _w ² - P _s ² /es	18634.1	18073.4	15849.9	15391.2	12002.5	11668.1	8611.0	8399.1
11 P _w or P _w	4316.7	(4251.3)	3975.5	(3916.8)	3464.8	(3415.9)	3075.8	(2999.3)
12 P ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_f}{2}$)	4790.0	4811.2	4542.4	4512.9	4903.5	3969.0	3411.0	3377.7
13 P _r = (P/P _{cr})	7.34	7.29	6.88	6.76	5.98	5.94	5.12	5.79
14 T _r = (T/T _{cr})	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
15 Z (Table XI)	.945	.940	.910	.907	.862	.859	.815	.814