

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

Flow Rate No. 4

COMPANY Gulf Oil Corporation LEASE Helbing Fed. Gas (Comm) WELL NO. 1 DATE May 23, 1966

LOCATION: Unit F Section 15 Township 22 S Range 23 E

L 7150 H 7150 L/H 1.000 G .676 % CO<sub>2</sub> 0.51 % N<sub>2</sub> 0.90 % H<sub>2</sub>S 0.37

GH 4833 P<sub>CT</sub> 669 T<sub>CT</sub> 382

LINE	1	2	3	4	5	6	7	8
1	$T_w$ (W.H. °R)	532						
2	$T_s$ (F.H. °R)	612						
3	$T = \frac{T_w + T_s}{2}$	572						
4	Z (Est.)	.765						
5	TZ	438						
6	GH/TZ	11.034						
7	$e^S$ (Table XIV)	1.513						
8	$P_f$ or $P_s$	2607						
9	$P_f^2$ or $P_s^2$	6796.4						
10	$P_c^2 = P_f^2/e^S$ or $P_w^2 = P_s^2/e^S$	4492.0						
11	$P_c$ or $P_w$	2119						
12	$P_c = \frac{P_w + P_s}{2}$ or $\frac{P_c + P_f}{2}$	2363						
13	$P_T = (P/P_{CT})$	3.53						
14	$T_T = (T/T_{CT})$	1.49						
15	Z (Table XI)	.765						