

# WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES ( $P_c$ or $P_w$ )

Form C-122F  
Adopted 9-1-65

Flow Rate No. 1

FROM KNOWN BOTTOM HOLE PRESSURE ( $P_f$  or  $P_s$ )

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 .674 % CO<sub>2</sub> 0.51 % N<sub>2</sub> 0.90 % H<sub>2</sub>S 0.37

GH 4819 P<sub>cr</sub> 669 T<sub>cr</sub> 382  
TABLE IX & X

| LINE |                                                                                                                                                        | 1      | 2      | 3 | 4 | 5 | 6 | 7 | 8 |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|---|---|---|---|---|---|
| 1    | T <sub>w</sub> (W.H. °R)                                                                                                                               | 529    | 529    |   |   |   |   |   |   |
| 2    | T <sub>s</sub> (B.H. °R)                                                                                                                               | 612    | 612    |   |   |   |   |   |   |
| 3    | T = ( $\frac{T_w + T_s}{2}$ )                                                                                                                          | 571    | 571    |   |   |   |   |   |   |
| 4    | Z (Est.)                                                                                                                                               | .766   | .782   |   |   |   |   |   |   |
| 5    | TZ                                                                                                                                                     | 437    | 447    |   |   |   |   |   |   |
| 6    | GH/TZ                                                                                                                                                  | 11.027 | 10.781 |   |   |   |   |   |   |
| 7    | e <sup>s</sup> (Table XIV)                                                                                                                             | 1.512  | 1.498  |   |   |   |   |   |   |
| 8    | P <sub>f</sub> or P <sub>s</sub>                                                                                                                       | 2805   | 2805   |   |   |   |   |   |   |
| 9    | P <sub>f</sub> <sup>2</sup> or P <sub>s</sub> <sup>2</sup>                                                                                             | 7868.0 | 7868.0 |   |   |   |   |   |   |
| 10   | P <sub>c</sub> <sup>2</sup> = P <sub>f</sub> <sup>2</sup> /e <sup>s</sup> or P <sub>w</sub> <sup>2</sup> = P <sub>s</sub> <sup>2</sup> /e <sup>s</sup> | 5203.7 | 5252.3 |   |   |   |   |   |   |
| 11   | P <sub>c</sub> or P <sub>w</sub>                                                                                                                       | 2281   | 2292   |   |   |   |   |   |   |
| 12   | P = ( $\frac{P_w + P_s}{2}$ ) or ( $\frac{P_c + P_f}{2}$ )                                                                                             | 2543   | 2549   |   |   |   |   |   |   |
| 13   | P <sub>r</sub> = (P/P <sub>cr</sub> )                                                                                                                  | 3.80   | 3.81   |   |   |   |   |   |   |
| 14   | T <sub>r</sub> = (T/T <sub>cr</sub> )                                                                                                                  | 1.52   | 1.52   |   |   |   |   |   |   |
| 15   | Z (Table XI)                                                                                                                                           | .782   | .782   |   |   |   |   |   |   |

One copy to be filed in District Office (Work copy acceptable)