

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

Form C-122F  
Adopted 9-1-65

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

COMPANY W. W. Buckhannon Lease

0 Sage

WELL NO. 1

DATE 7-16-79

LOCATION: Unit \_\_\_\_\_

Section \_\_\_\_\_

Township \_\_\_\_\_

Range \_\_\_\_\_

L 2090 H 2050

L/H 1.00

G 1.691

% CO<sub>2</sub> \_\_\_\_\_

% N<sub>2</sub> \_\_\_\_\_

% H<sub>2</sub>S \_\_\_\_\_

GH 4899

$P_{cr}$  669

$T_{cr}$  388

TABLE IX & X

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| LINE | 1                                                      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|------|--------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| 1    | $T_w$ (W.H. °R)                                        | 534    | 534    | 534    | 534    | 534    | 534    | 534    |
| 2    | $T_s$ (B.H. °R)                                        | 605    | 605    | 605    | 605    | 605    | 605    | 605    |
| 3    | $T = (\frac{T_w + T_s}{2})$                            | 570    | 570    | 570    | 570    | 570    | 570    | 570    |
| 4    | Z (Est.)                                               | .741   | .740   | .740   | .741   | .740   | .741   | .746   |
| 5    | TZ                                                     | 488.0  | 481.4  | 481.4  | 488.0  | 481.4  | 484.3  | 431.1  |
| 6    | GH/TZ                                                  | 11.61  | 11.62  | 11.62  | 11.61  | 11.62  | 11.55  | 11.53  |
| 7    | $e^s$ (Table XIV)                                      | 1.545  | 1.546  | 1.546  | 1.545  | 1.546  | 1.541  | 1.531  |
| 8    | $P_f$ or $P_s$                                         | 2487.2 | 2487.2 | 2395.2 | 2395.2 | 2235.2 | 1987.2 | 1587.2 |
| 9    | $P_f^2$ or $P_s^2$                                     | 6186.2 | 6186.2 | 5756.2 | 5756.2 | 4996.1 | 3945.0 | 3545.0 |
| 10   | $P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$             | 4002.7 | 4000.4 | 3722.3 | 3724.5 | 3230.8 | 2562.6 | 2578.8 |
| 11   | $P_c$ or $P_w$                                         | 2000.7 | 2000.1 | 1929.3 | 1929.5 | 1797.4 | 1600.1 | 1605.9 |
| 12   | $P_c (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$ | 2243.9 | 2243.6 | 2164.3 | 2164.5 | 2016.3 | 1794.0 | 1796.5 |
| 13   | $P_r = (P/P_{cr})$                                     | 3.35   | 3.35   | 3.24   | 3.24   | 3.01   | 3.01   | 2.64   |
| 14   | $T_r = (T/T_{cr})$                                     | 1.47   | 1.47   | 1.47   | 1.47   | 1.47   | 1.47   | 1.47   |
| 15   | Z (Table XI)                                           | .740   | .740   | .741   | .741   | .745   | .757   | .756   |