

FLOWING BNP'S  
CORRECTED TO SURFACE

Form O-122F  
Adopted 9-1-69

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (For P<sub>w</sub>)

FROM KNOWN BOTTOM HOLE PRESSURE (For P<sub>s</sub>)

COMPANY GREAT WESTERN DRILLING LEASE MOSLEY SPRINGS 32 WELL NO. 3 DATE 5-25-90

LOCATION: Unit G Section 32 Township 23 S Range 25 E

W 9850 H 9850 LH 1.000 G .553 % CO<sub>2</sub> .61 % N<sub>2</sub> 1.12 % H<sub>2</sub>S —

\* BNP INSTRUMENT SET @ THIS DEPTH GH 5841.05 P<sub>cr</sub> 671 T<sub>cr</sub> 351

(1) RATE (2) RATE (3) RATE (4) RATE

| LINE | 1                                                                                                                                                      | 2       | 3       | 4       | 5       | 6       | 7       | 8       |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| 1    | T <sub>w</sub> (W.H. • R)                                                                                                                              | 534     | 534     | 534     | 534     | 534     | 534     | 534     |
| 2    | T <sub>s</sub> (B.H. • R)                                                                                                                              | 633     | 633     | 633     | 633     | 633     | 633     | 633     |
| 3    | T <sub>1</sub> (T <sub>w</sub> + T <sub>s</sub> )                                                                                                      | 583.5   | 583.5   | 583.5   | 583.5   | 583.5   | 583.5   | 583.5   |
| 4    | Z (Est.)                                                                                                                                               | 1892    | 1864    | 1883    | 1851    | 1872    | 1851    | 1833    |
| 5    | TZ                                                                                                                                                     | 520.4   | 504.1   | 575.2   | 499.4   | 508.8   | 496.5   | 486.0   |
| 6    | GH/TZ                                                                                                                                                  | 11.222  | 11.586  | 11.336  | 11.694  | 11.479  | 11.763  | 12.017  |
| 7    | e <sup>a</sup> (Table XIV)                                                                                                                             | 1.523   | 1.544   | 1.529   | 1.550   | 1.538   | 1.554   | 1.569   |
| 8    | P <sub>cr</sub> or P <sub>s</sub>                                                                                                                      | 4036.2  | 4036.2  | 3914.2  | 3914.2  | 3769.2  | 3451.2  | 3451    |
| 9    | P <sub>w</sub> <sup>2</sup> or P <sub>s</sub> <sup>2</sup>                                                                                             | 16290.9 | 16290.9 | 15321.0 | 15321.0 | 14206.9 | 11910.8 | 11910.8 |
| 10   | P <sub>w</sub> <sup>2</sup> = P <sub>s</sub> <sup>2</sup> /e <sup>a</sup> or P <sub>w</sub> <sup>2</sup> = P <sub>s</sub> <sup>2</sup> /e <sup>a</sup> | 10694.9 | 10550.0 | 10015.0 | 9881.6  | 9237.1  | 7662.4  | 7589.7  |
| 11   | P <sub>w</sub> or P <sub>w</sub>                                                                                                                       | 3270.3  | 3248.0  | 3164.6  | 3143.5  | 3039.2  | 2768.1  | 2754.9  |
| 12   | P <sub>1</sub> = (P <sub>w</sub> + P <sub>s</sub> ) or (P <sub>w</sub> + P <sub>1</sub> )                                                              | 3670.3  | 3642.1  | 3539.4  | 3528.8  | 3404.2  | 3109.6  | 3103.0  |
| 13   | P <sub>1</sub> = (P/P <sub>cr</sub> )                                                                                                                  | 5.44    | 5.43    | 5.27    | 5.26    | 5.07    | 4.63    | 4.62    |
| 14   | T <sub>1</sub> = (T/T <sub>cr</sub> )                                                                                                                  | 1.66    | 1.66    | 1.66    | 1.66    | 1.66    | 1.66    | 1.66    |
| 15   | Z (Table XI)                                                                                                                                           | 1.64    | 1.64    | 1.856   | 1.856   | 1.849   | 1.833   | 1.833   |

\* \* \* = P<sub>w</sub>