

## WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P<sub>f</sub> & P<sub>s</sub>)  
(SURFACE) PRESSURE (P<sub>f</sub> & P<sub>s</sub>)Form C-122-E  
Adopted 9-1-65COMPANY Gulf Oil Explor. & Prod. Co. Loving Fed. Com. WELL NO. 1 DATE 3-2-83LOCATION: Unit F Section 4 Township 23s Range 28eL 11386 H 11386 L/H 1.000 G .5775 % CO<sub>2</sub> .575 % N<sub>2</sub> .785 % H<sub>2</sub>S d 1.995 F<sub>r</sub> 0.18233 5.042 M<sup>2</sup> cfd (L/H) (F<sub>r</sub> Q<sub>m</sub>)<sup>2</sup> .008449 P<sub>cr</sub> 672 T<sub>cr</sub> 350

TABLE 18 &amp; 9

| LINE | ITEM                                             | SOURCE                         | 1       | 2       | 3       | 4       | 5       | 6 | 7 | 8         | 9 | 10 |
|------|--------------------------------------------------|--------------------------------|---------|---------|---------|---------|---------|---|---|-----------|---|----|
| 1    | H                                                |                                | 0       | 5693    |         | 11386   |         |   |   |           |   |    |
| 2    | GH                                               |                                | 0       | 3287.7  |         | 6575.4  |         |   |   |           |   |    |
| 3    | 37.5GH                                           |                                | 0       | 123,289 |         | 246,578 |         |   |   |           |   |    |
| 4    | P <sub>c</sub> or P <sub>n</sub>                 |                                | 4113.2  | 4718.4  | 4701.6  | 5288.8  | 5261.4  |   |   | Ps-5258.6 |   |    |
| 5    | P <sub>r</sub>                                   |                                | 6.12    | 7.02    | 7.00    | 7.87    | 7.83    |   |   |           |   |    |
| 6    | T                                                |                                | 534     | 591     | 591     | 648     | 648     |   |   |           |   |    |
| 7    | T <sub>r</sub>                                   |                                | 1.53    | 1.69    | 1.69    | 1.85    | 1.85    |   |   |           |   |    |
| 8    | Z                                                |                                | .869    | .966    | .965    | 1.041   | 1.039   |   |   |           |   |    |
| 9    | P/Z P/Z                                          | $\bar{4} \div \bar{8}$         | 4733.3  | 4884.4  | 4872.1  | 5080.5  | 5063.9  |   |   |           |   |    |
| 10   | P/TZ                                             | $\bar{9} \div \bar{6}$         | 8.8638  | 8.2647  | 8.2438  | 7.8402  | 7.8146  |   |   |           |   |    |
| 11   | (P/TZ) <sup>2</sup> /1000                        | $(\bar{10} \div \bar{2})/1000$ | .078567 | .068305 | .067961 | .061469 | .061068 |   |   |           |   |    |
| 12   | L/H(F <sub>r</sub> Q <sub>m</sub> ) <sup>2</sup> |                                | .008449 | .008449 | .008449 | .008449 | .008449 |   |   |           |   |    |
| 13   |                                                  | $\bar{11} + \bar{12}$          | .087016 | .076754 | .076410 | .069918 | .069517 |   |   |           |   |    |
| 14   | I <sub>n</sub>                                   | $\bar{10} \div \bar{13}$       | 101.864 | 107.678 | 107.889 | 112.135 | 112.413 |   |   |           |   |    |
| 15   | M=P <sub>n</sub> ·P <sub>n</sub> <sup>-1</sup>   |                                |         | 605     | 588     | 587     | 560     |   |   |           |   |    |
| 16   | N=I <sub>n</sub> +I <sub>n</sub> -1              |                                |         | 209.542 | 209.753 | 220.024 | 220.302 |   |   |           |   |    |
| 17   | M x N                                            | $\bar{15} \times \bar{16}$     |         |         | 123413  |         | 123320  |   |   |           |   |    |
| 18   | Σ (M x N)                                        | Σ $\bar{17}$                   |         |         | 123165  |         |         |   |   |           |   |    |