

# WORK SHEET FOR STEPWISE CALCULATION (SURFACE) PRESSURE (P<sub>c</sub> & P<sub>w</sub>)

Form G-122-B  
Adopted 9-1-65

Standard Oil Company

COMPANY of Texas LEASE Bogle Flats Unit WELL NO. 4 DATE 6-8-66

LOCATION: Unit F Section 10 Township 22S Range 23E

L 7074 H 7074 L/H 1.000 G .646 % CO<sub>2</sub> .54 % N<sub>2</sub> .90 % H<sub>2</sub>S .36

d F<sub>r</sub> Q<sub>m</sub> 0 M<sub>2</sub>CH (I/I<sub>0</sub> (F<sub>r</sub>Q<sub>m</sub>)<sup>2</sup> 0 P<sub>cr</sub> 673 T<sub>cr</sub> 368

TABLE IX a x TABLE IX a x

| LINE | ITEM                                              | SOURCE                          | 1       | 2       | 3       | 4       | 5       | 6 | 7                                                  | 8 | 9 | 10 |
|------|---------------------------------------------------|---------------------------------|---------|---------|---------|---------|---------|---|----------------------------------------------------|---|---|----|
| 1    | H                                                 |                                 | 7074    | 3537    |         | 0       |         |   | Delta P = 3 (37.5 CH)                              |   |   |    |
| 2    | GH                                                |                                 | 4569.80 | 2284.90 |         | 0       |         |   | I <sub>s</sub> + 4 I <sub>1</sub> + I <sub>2</sub> |   |   |    |
| 3    | 37.5GH                                            |                                 | 171,368 | 85,684  |         | 0       |         |   | = 3 (171,368)                                      |   |   |    |
| 4    | P <sub>c</sub> or P <sub>n</sub>                  |                                 | 2839.8  | 2590.8  | 2589.8  | 2340.8  | 2339.8  |   | 172,194 + 684,695 + 170,663                        |   |   |    |
| 5    | P <sub>r</sub>                                    |                                 | 4.22    | 3.85    | 3.85    | 3.48    | 3.48    |   |                                                    |   |   |    |
| 6    | I                                                 |                                 | 592     | 564     | 564     | 536     | 536     |   | 514,104                                            |   |   |    |
| 7    | I <sub>r</sub>                                    |                                 | 1.61    | 1.53    | 1.53    | 1.46    | 1.46    |   | 1,027.553                                          |   |   |    |
| 8    | Z                                                 |                                 | .826    | .786    | .786    | .745    | .745    |   |                                                    |   |   |    |
| 9    | P/Z P/Z                                           | 4:3                             | 3438.0  | 3296.2  | 3294.9  | 3142.0  | 3140.7  |   | = 500.3                                            |   |   |    |
| 10   | P/TZ                                              | 9:6                             | 5.8074  | 5.8443  | 5.8420  | 5.8619  | 5.8595  |   |                                                    |   |   |    |
| 11   | (P/TZ) <sup>2</sup> /1000                         | (9) <sup>2</sup> /1000          |         |         |         |         |         |   | P <sub>r</sub> + I <sub>s</sub> - Delta P          |   |   |    |
| 12   | I/H (F <sub>r</sub> Q <sub>m</sub> ) <sup>2</sup> |                                 |         |         |         |         |         |   |                                                    |   |   |    |
| 13   |                                                   | I <sub>1</sub> + I <sub>2</sub> |         |         |         |         |         |   | 2839.8 - 500.3                                     |   |   |    |
| 14   | I <sub>n</sub>                                    | 10:13                           | 172,194 | 171,107 | 171,174 | 170,593 | 170,663 |   |                                                    |   |   |    |
| 15   | M <sub>2</sub> CH n <sup>-1</sup>                 |                                 |         | 249     | 250     | 249     | 250     |   | 2339.5                                             |   |   |    |
| 16   | M <sub>2</sub> CH + I <sub>n</sub> -1             |                                 |         | 343,301 | 343,368 | 341,767 | 341,837 |   |                                                    |   |   |    |
| 17   | M <sub>2</sub> CH                                 | 15:16                           |         |         | 85,842  |         | 85,459  |   |                                                    |   |   |    |
| 18   | > (M <sub>2</sub> CH)                             | > 17                            | 171,368 |         | 85,525  |         |         |   |                                                    |   |   |    |