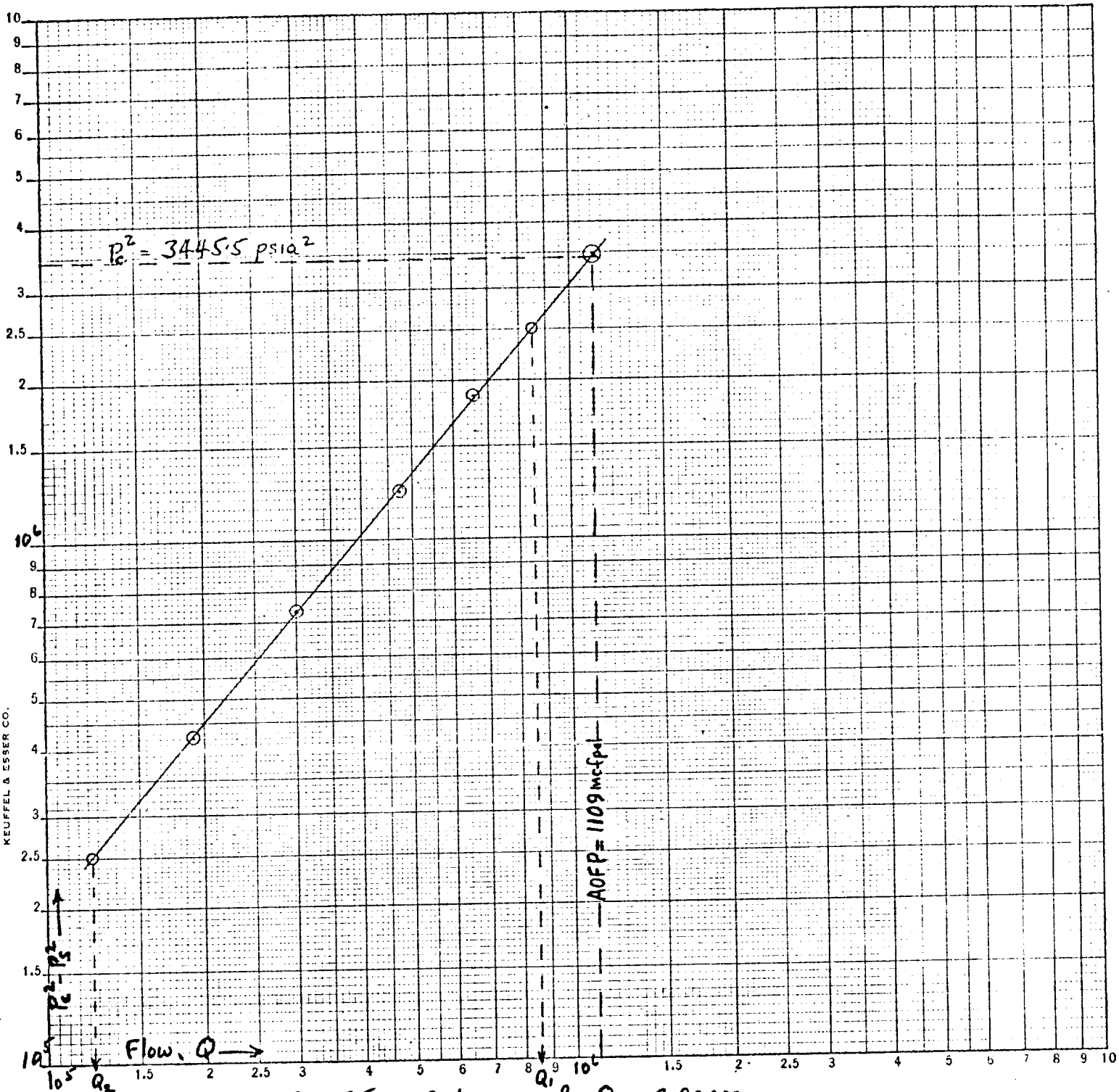


Yates Petroleum Corporation  
 State "DF" No. 1- K-4042  
 NW NW Section 35-17S-24E  
 Wildcat ~~Area~~ WC  
 Eddy County, New Mexico

LOGARITHMIC  
 2 X 2 CYCLES  
 KEUFFEL & ESSER CO.

45 7203



$Q_1 = 850 \text{ mcfpd}$   
 $Q_2 = 122 \text{ mcfpd}$

$\log Q_1 = 2.92942$   
 $\log Q_2 = 2.08636$   
 $m = 0.84306$

# WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P<sub>w</sub>)

Form C-122D  
Adopted 9-1-65

COMPANY Upton Petroleum Corp LEASE State DF WELL NO. 1 DATE 4-24-75

LOCATION: Unit D Section 35 Township 17-S Range 24-E

L 4940 H 4940 L/H 1.000 G 0.655 % CO<sub>2</sub> 0.11 % N<sub>2</sub> 1.07 % H<sub>2</sub>S

4578' 2 3/8 62' 9 5/8 d F<sub>1</sub> .018039 GH 3235.7 P<sub>CT</sub> 669 T<sub>CT</sub> 374  
TABLE IX & X TABLE IX & X

| LINE                                                                                      | SI     | 1      | 2      | 3      | 4      | 1      | 2      | 3      | 4      |
|-------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 Q <sub>m</sub>                                                                          | -      | 191    | 300    | 472    | 657    | 191    | 300    | 472    | 657    |
| 2 T <sub>w</sub> (W.H. °R)                                                                | 507    | 542    | 544    | 547    | 545    |        |        |        |        |
| 3 T <sub>s</sub> (B.H. °R)                                                                | 565    | 562    | 560    | 557    | 553    |        |        |        |        |
| 4 T = ( $\frac{1}{T_w} + \frac{1}{T_s}$ )                                                 | 536    | 552    | 552    | 552    | 549    | 552    | 552    | 552    | 549    |
| 5 Z (Est.)                                                                                |        | .785   | .790   | .800   | .815   | .784   | .792   | .806   | .826   |
| 6 TZ                                                                                      | 397.7  | 433.32 | 436.08 | 441.6  | 447.44 | 432.77 | 437.18 | 444.91 | 453.47 |
| 7 GH/TZ                                                                                   | 8.136  | 7.467  | 7.420  | 7.3272 | 7.232  | 7.477  | 7.401  | 7.273  | 7.135  |
| 8 e <sup>s</sup> (Table XIV)                                                              | 1.357  | 1.323  | 1.321  | 1.316  | 1.312  | 1.324  | 1.320  | 1.314  | 1.307  |
| 9 1-e <sup>s</sup> (Table XIV)                                                            |        | .244   | .243   | 0.240  | .238   | .245   | .242   | .239   | .235   |
| 10 P <sub>t</sub>                                                                         | 1593.2 | 1511.2 | 1433.2 | 1296.2 | 1094.2 | 1511.2 | 1433.2 | 1296.2 | 1094.2 |
| 11 P <sub>t</sub> 2/1000                                                                  | 2538.3 | 2283.7 | 2054.1 | 1680.1 | 1197.3 | 2283.7 | 2054.1 | 1680.1 | 1197.3 |
| 12 F <sub>t</sub> (Table XV)                                                              |        |        |        |        |        |        |        |        |        |
| 13 F <sub>c</sub> = F <sub>t</sub> TZ                                                     |        | 7.8167 | 7.8664 | 7.966  | 8.071  | 7.8067 | 7.886  | 8.026  | 8.180  |
| 14 F <sub>c</sub> Q <sub>m</sub>                                                          |        | 1.493  | 2.360  | 3.760  | 5.303  | 1.491  | 2.366  | 3.788  | 5.374  |
| 15 L/H (F <sub>c</sub> Q <sub>m</sub> ) <sup>2</sup>                                      |        | 2.229  | 5.569  | 14.137 | 28.120 | 2.223  | 5.598  | 14.350 | 28.884 |
| 16 F <sub>w</sub> = L/H (F <sub>c</sub> Q <sub>m</sub> ) <sup>2</sup> (1-e <sup>s</sup> ) |        | .544   | 1.353  | 3.393  | 6.693  | 0.545  | 1.355  | 3.430  | 6.788  |
| 17 P <sub>w</sub> <sup>2</sup> = P <sub>t</sub> <sup>2</sup> + F <sub>w</sub>             |        | 2284.2 | 2055.4 | 1683.5 | 1204.0 | 2284.2 | 2055.5 | 1683.5 | 1204.1 |
| 18 P <sub>s</sub> <sup>2</sup> = e <sup>s</sup> P <sub>w</sub> <sup>2</sup>               |        | 3445.5 | 3022.0 | 2715.2 | 2215.5 | 3024.3 | 2713.2 | 2212.2 | 1573.7 |
| 19 P <sub>s</sub>                                                                         |        | 1856.2 | 1738.4 | 1647.8 | 1488.5 | 1739.1 | 1647.2 | 1487.3 | 1254.5 |
| 20 P = ( $\frac{P_t + P_s}{2}$ )                                                          |        | 1724.7 | 1624.8 | 1540.5 | 1392.3 | 1625.1 | 1540.2 | 1391.8 | 1174.3 |
| 21 P <sub>t</sub> = (P/P <sub>ct</sub> )                                                  |        | 2.578  | 2.429  | 2.303  | 2.081  | 2.429  | 2.302  | 2.080  | 1.755  |
| 22 T <sub>t</sub> = (T/T <sub>ct</sub> )                                                  |        | 1.433  | 1.476  | 1.476  | 1.468  | 1.476  | 1.476  | 1.476  | 1.468  |
| 23 Z (Table XI)                                                                           | .742   | .784   | .792   | .806   | .826   | .784   | .792   | .806   | .826   |