

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE)
PRESSURE (P_f & P_s)
XXXXXXXXXX
Rate No. 4

WELL NO. 1 DATE 5-27-75
 COQUINA FEDERAL TOWNSHIP 20-S RANGE 27-E
 MONSANTO COMPANY LEASE 31 SECTION 1.0 L/H 1.0 G .640 % CO₂ % N₂ % H₂S
 10690 H 10690 SOURCE 10690 5345 3421 128280 1416.9 2.11 582 1.56 .840 1841.7 2.9467 2.9009 339.352 344.715 189 678.704 128275 128275 256880 769680 2073.472 339.352 + 4 (344.715) + 355.260 = 371.2
 d F_r Q_m M²cfd (L/H) (F_r Q_m)² P_{cr} 672 T_{cr} 372

NE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
H			10690	5345	0							
GH			6842	3421	0							
37.5GH			256560	128280	0							
P _c or P _n			1606.0	1416.9	1229.4							
P _r			2.39	2.11	1.83							
T			625	582	538							
T _r			1.68	1.56	1.45							
Z			.872	.840	.813							
O/Z P/Z			1841.7	1686.8	1512.2							
P/TZ			2.9467	2.9009	2.8108							
(P/TZ) ² /1000												
L/H(F _r Q _m) ²												
11 ÷ 12												
10 ÷ 13			339.352	344.715	355.758							
12 ÷ 14				189	188							
13 ÷ 15				678.704	684.068							
14 ÷ 16				128275	128605							
15 ÷ 17				128275	256880							

delta P = $\frac{3 (256560)}{339.352 + 4 (344.715) + 355.260} = \frac{769680}{2073.472} = 371.2$
 P = 1606.0 - 371.2 = 1234.8