

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE
~~XXXXXXXXXX~~
 $(P_f \& P_g)$
 $(P_c \& P_w)$

Form C-122-E

RATE NO. 2

Monsanto Company

LEASE

Cert Federal

WELL NO. 2

DATE 10-20-76

UNIT F SECTION 10 TOWNSHIP 21S RANGE 27E

11437 H 11437 L/H 1.00 G 0.596 % CO₂ 0.00 % N₂ 0.00 % H₂S 0.00
 d 2.441 F 0.010763 Q_m 1.220 M² cfd (L/H) (F Q_m)² 0.000172 P_{cr} 671 T_{cr} 358

ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
H		0	5719	11437							
GH		0	3408	6816							
37.5GH		0	127808	255617							
P _c or P _n		2023.2	2344.2	2665.2							
P _r		3.02	3.49	3.97							
T _r		530	577	624							
T _r		1.48	1.61	1.74							
2		0.764	0.821	0.869							
P/2 P/2		4 ÷ 8	2647.47	2854.95	3065.56						
P/TZ		9 ÷ 6	4.9952	4.9479	4.9128						
(P/TZ) ² / 1000		(10 ² / 1000)	0.024952	0.024482	0.024135						
/H(F Q _m) ²			0.000172	0.000172	0.000172						
T _n		11 + 12	0.025125	0.024654	0.024308						
T _n		10 ÷ 13	198.817	200.692	202.108						
N=P _n - P _{n-1}			321	319	317						
N=L _n + T _{n-1}			399.509	402.799							
M x N		15 x 16	128242	128493							
Σ (M x N)		Σ 17	128242	256735							

$$\Delta P = \frac{3[255617]}{198.817 + 4[200.692] + 202.108} = \frac{766851}{1203.693} = 637.1$$

$$P = 2023.2 + 637.1 = 2660.3$$