

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_f & P_g)
 XXXXXXXXXXXX (P_c & P_w)

Form C-122-E

RATE NO. 3

DATE 10-20-76

WELL NO. 2

RANGE 27E

SECTION 10 TOWNSHIP 21S

UNIT F

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 1.764 M² cfd (L/H) (P_c Q_m)² 0.000360 P_{cr} 671 T_{cr} 358

ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1 H		0	5719	11437							
2 GH		0	3408	6816							
3 37.5GH		0	127808	255617							
P _c OR P _n		1707.2	1965.2	2223.2	2229.2						
P _r		2.54	2.93	3.31	3.32						
T _r		541	583	624	624						
T _m		1.51	1.63	1.74	1.74						
2		0.799	0.839	0.873	0.873						
P/Z P/Z		4 ÷ 8	2138.01	2343.15	2547.79	2554.66					
P/P _{cr}		9 ÷ 6	3.9520	4.0226	4.0830	4.0940					
(P/P _{cr}) ² / 1000		(10 ² / 1000)	0.015618	0.016181	0.016671	0.016761					
/H (P _c Q _m) ²			0.000360	0.000360	0.000360	0.000360					
T _r		11 + 12	0.015978	0.016542	0.017031	0.017121					
T _m		10 ÷ 13	247.331	243.180	239.735	239.117					
N = P _n - P _{n-1}			258	260	264	264					
N = 1 _n + 1 _{n-1}			490.510	482.914	482.296						
M x N		15 x 16	126552		127326						
Σ (M x N)		Σ 17	126552		253878						

$$\Delta P = \frac{247.331 + 4[243.180] + 239.117}{3[255617]} = \frac{766851}{525.5} = 1707.2 + 525.5 = 2232.7$$