

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_f & P_s)
 (SURFACE) (P_c & P_w)
 RATE NO. 2
 Form C-122-E

COMPANY _____ LEASE _____ WELL NO. _____ DATE _____

CATION: UNIT _____ SECTION _____ TOWNSHIP _____ RANGE _____
 9680 H 9680 L/H 1.00 G 0.903 % CO₂ 1.30 % N₂ 0.69 % H₂S 0.00
 d _____ F_r _____ Q_m _____ M² cfd (L/H) (F_r Q_m)² P_{cr} _____ 662 T_{cr} _____ 457

NE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		9680	4840		0						
2	CH		8741	4371		0						
3	37.5GH		327789	163895		0						
4	P _c or P _n		5011.8	4346.9	4326.0	3640.2	3590.0					
5	P _r		7.57	6.57	6.53	5.50	5.42					
6	T _r		651	591	591	530	530					
7	T _r		1.42	1.29	1.29	1.16	1.16					
8	Z		0.949	0.852	0.848	0.734	0.727					
9	P/Z P/Z		5282.25	5101.97	5101.41	4956.75	4940.79					
0	P/TZ		9 ÷ 6	8.1141	8.6391	9.3524	9.3223					
1	(P/TZ ² /1000		(10 ² /1000									
2	L/H (F _r Q _m) ²											
3												
4	I _n											
5	M=P _n -P _{n-1}											
6	N=1 _n +1 _{n-1}											
7	M x N											
8	Σ (M x N)											

$$\begin{aligned}
 \Delta P &= \frac{327789}{123.243 + 4[115.752] + 107.270} = \frac{983367}{693.521} = 1417.9 \\
 P &= 5011.8 - 1417.9 = 3593.9
 \end{aligned}$$