

WORK SHEET FOR STEPWISE CALCULATION

Form C-122-E

(SUBSURFACE)
PRESSURE
(P_f & P_s)
XXXXXXXXXXXXXXXXXXXXC_w

RATE NO. 1

COMPANY Mewbourne Oil Company LEASE State E. Comm. WELL NO. 1 DATE 10-13-78

LOCATION: UNIT N SECTION 6 TOWNSHIP 16S RANGE 34E

12482 H 12482 L/H 1.00 G 0.815 % CO₂ 0.00 N₂ 0.00 % H₂S 0.00

d F_r Q_m M² cfd (L/H) (F_r Q_m)² P cr 665 T cr 431

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		12482	6241		0						
2	GH		10173	5086		0						
3	37.5GH		381481	190741		0						
4	P _c or P _n		4582.2	3848.9	3829.3	3077.3	3033.7	3036.1				
5	P _r		6.89	5.79	5.76	4.63	4.56	4.57				
6	T		649	591	591	532	532	532				
7	T _r		1.51	1.37	1.37	1.23	1.23	1.23				
8	Z		0.918	0.804	0.802	0.672	0.666	0.666				
9	P/Z P/Z		4990.42	4789.52	4777.06	4580.74	4552.39	4555.98				
10	P/TZ		7.6894	8.1110	8.0899	8.6104	8.5571	8.5639				
11	(P/TZ) ² /1000		(10 ² /1000									
12	L/H(F _r Q _m) ²											
13			11 + 12									
14	I _n		10 ÷ 13	123.290	123.611	116.138	116.862	116.770				
15	M=P-P _n ⁻¹			733	753	752	796	793	793			
16	N=1 + 1 _{n-1}			253.339	253.661	239.750	240.473	240.381				
17	M x N				185697			190622				
18	Σ (M x N)				185697			376320				

Delta P = $\frac{3[381481]}{130.049 + 4[123.611] + 116.770} = \frac{114443}{741.263} = 1543.9$

P = 4582.2 - 1543.9 = 3038.3