

FORM C-122E WORKSHEET FOR STEPWISE CALCULATION (SURFACE) PRESSURE (Pc & Pw) .

COMPANY : PHILLIPS PETRO CO LEASE :RANGER 17 WELL NO. : 1 DATE : 5 19 92

UNIT : 0 SECTION : 34 TOWNSHIP : 12 RANGE : 34

L : 12675 H : 12675 L/H : 1.0 G/GMIX : 1.098

CO2 : 2.24 N2 : 3.36 H2S : 3.36

d : 2.441 Fr :0.010763 Qm : 0.000 (L/H)(FrQm)0.000000

PCR : 656 TCR : 508

LINE	ITEM	SOURCE	1	2	3	4	5	6
1	H		12675	6338		0		
2	GH		13917.15	6958.58		0		
3	37.5GH		521893	260947		0		
4	Pc or Pn		4974.2	3920.9	3904.5	2835.9	2695.5	2722.8
5	Pr		7.81	5.98	5.95	4.32	4.11	4.15
6	T		660.75	597.375	597.375	534	534	534
7	Tr		1.30	1.18	1.18	1.05	1.05	1.05
8	Z		0.960	0.788	0.786	0.507	0.507	0.504
9	P/ZP/Z	4/8	5334.1	4974.9	4969.8	5590.3	5313.5	5403.2
10	P/TZ	9/6	8.0729	8.3279	8.3194	10.4688	9.9504	10.1183
11	Ln10*2/1000:(10)2/100							
12	L/H(FrQm)2							
13		11+12						
14	In	10/13	123.872	120.078	120.201	95.522	100.499	98.831
15	M=Pn-Pn-1			1053	1070	1069	1209	1182
16	N=In+In-1			243.950	244.073	215.723	220.700	219.032
17	M x N	15x16			261078			258844
18	SUM(MxN)	SUM17	521893		260815			

DELTA P = 2225.5

Pw = 2748.7