

WORK SHEET FOR STEPWISE CALCULATION

XSURFACE

PRESSURE

(P_f & P_s)

Form C-122-E

(SURFACE)

(P_c & P_w)

RATE NO. 3

COMPANY Maralo, Inc. LEASE Chavelea Carson WELL NO. 1 DATE 4-13-77

LOCATION: UNIT F SECTION 10 TOWNSHIP 9S RANGE 31E

10163 H 10163 L/H 1.00 G 0.899 % CO₂ 0.00 % N₂ 0.00 % H₂S 0.00

d r F r Q_m M² cfd (L/H) (F_r Q_m)² P_{cr} 662 T_{cr} 457

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	P _r		10163	5082		0						
2	GH		9137	4568		0						
3	37.5GH		342620	171310		0						
4	P _c or P _n		2912.2	2372.2	2364.2	1816.9	1789.2	1791.9				
5	P _r		4.40	3.58	3.57	2.74	2.70	2.71				
6	T _r		637	585	585	533	533	533				
7	T _r		1.39	1.28	1.28	1.17	1.17	1.17				
8	Z		0.725	0.624	0.624	0.489	0.487	0.487				
9	P/Z P/Z		4 ÷ 8	4015.72	3799.20	3788.77	3714.09	3676.85	3678.06			
10	P/PTZ		9 ÷ 6	6.3041	6.4944	6.4765	6.9683	6.8984	6.9007			
11	(P/PTZ ² /1000		(10 ² /1000									
12	L/H(F _r Q _m) ²											
13			11 + 12									
14	I _n		10 ÷ 13	158.627	153.980	154.404	143.508	144.961	144.914			
15	M=P _n -P _{n-1}			540	548	547	575	572	572			
16	N=1 _n +1 _{n-1}			312.606	313.030	297.911	299.364	299.317				
17	M x N		15 x 16	171540	171540			171209				
18	Σ (M x N)		Σ 17	171540				342750				

$$\Delta P = \frac{158.627 + 4 \left[\frac{342620}{1027860} \right] + 154.404}{921.157} + 144.914 = 1115.8 \quad P = 2912.2 - 1115.8 = 1796.4$$

RECEIVED

APR 20 1977

OIL CONSERVATION COMM.
ROBES, H. M.