

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_c & P_w)

Form C-122-E
Adopted 9-1-65

Flow no. 1

COMPANY SHELLY OIL COMPANY LEASE FORTY NINE RIGGE UNIT WELL NO. 2 DATE 12-4-74

LOCATION: Unit G Section 21 Township 23S Range 30E

L 13981 H 13981 L/H 1 G 1.575 % CO₂ 1.31 % N₂ 0.59 % H₂S -

d 1.995 F_r 0.018231 Q_m 0 M²cf/d (L/H) (F_rQ_m)² 0 P_{CF} 675 T_{CF} 342

TABLE IX & X

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To C-122

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		12981	12500	12500	6250			0			
2	GH		8039.08	7187.50	5120.50	2543.25			0			
3	37.5GH		301466	269531	-12631	1240.12			0			
	Est. M		0	-496	0	-211.3	-211.3		0.9	-208.8	-209.0	
4	P _c or P _n		1857	1807.4	1807.4	1540.0	1540.1		1384.0	1387.1	1386.1	1387
5	P _r		2.75	2.68	2.68	2.50	2.36		2.05	2.05	2.05	2.05
6	T _{OR}		645	633	633	581			533			533
7	T _r		1.89	1.85			1.70		1.56	1.56	1.56	1.56
8	Z		919	911			881		843	843	843	843
9	P/Z	4÷8	2020.70	1984.00	1984.00	1740.0	1740.0	1740.0	1641.80	1645.40	1645.20	
10	P/TZ	9÷8	313290	313490	313490	271100	271100	271100	308030	308710	308600	
11	(P/TZ) ² /1000	(10) ² /1000	1009815	1009824	1009824	741100	741100	741100	1009881	1009880	1009822	
12	L/H(F _r Q _m) ²		0	0	0	0			0			
13	I _n	I ₁ + I ₂	1009815	1009824	1009824	741100	741100	741100	1009881	1009880	1009822	
14	I _n	I ₀ ÷ I ₃	319195	319045	319201	271100	271100	271100	308030	308710	308600	
15	M = P _n - P _{n-1}		0	-496					-208.8	-209.0	-209.0	
16	N = I _n + I _{n-1}		319195	638240	711201	741100	741100	741100	1009881	1009880	1009822	
17	M x N	I ₅ x I ₆	0	3165630								
18	Σ (M x N)	Σ I ₇	201466	2698097								

Flowing Bottom hole Pressure more or less than well head pressure BHP Average.