

WORK SHEET FOR STEPWISE CALCULATION (SUBSURFACE) PRESSURE (P_f & P_s)
(SURFACE) (P_c & P_w)

Form C-122E
Adopted 9-1-65

COMPANY Union Oil Co. of California LEASE Refining Co. Well No. DATE 8-11-70

LOCATION: Unit M Section 4 Township 19 South Range 34 East

L 23325 H 15325 L/H 1.00 G 0.9395 %CO₂ 0.6 %N₂ 0.6 %H₂S Sweet

d 4.951 F_r 0.018201 Q_m 5.47 M₂ d₂ (L/H) (F_r Q_m)² 0.010002 P_{cr} 665 T_{cr} 469

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	6663		13325						
2	GH		0	6260		12519						
3	37.5GH		6	234746		167456						
4	P _c or P _n											
5	P _i		3813	5025	5007	6201	6170					
6	T		5.73	7.56	7.53	9.32	9.28					
7	T _r		544	602	602	660	650					
8	Z		116	1.28	1.28	1.41	1.41					
9	P _r	48	0.758	0.933	0.935	1.085	1.081					
10	P _r /Z	90	5030	5357	5355	5715	5708					
11	(P _r /T) ² /1000	10.2/31	7.25	8.90	8.90	9.66	9.65					
12	L/H(T _r Q _m) ²		0.08549	0.07917	0.07912	0.07498	0.07477					
13			0.01002	0.01002	0.01002	0.01002	0.01002					
14	I _n	11+12	0.05551	0.0919	0.08914	0.08400	0.08479					
15	M=I _n -P _n -1	10+13	96.85	99.79	99.84	101.58	102.02					
16	N=I _n +I _n -1		1212	1194	1194	1163	1162					
17	M x N	15x16	193.-	196.64	196.69	201.72	201.84					
18	Σ (M x N)	Σ 17		234342		234762						
19						432.61						