

WORKSHEET FOR CALCULATION OF STABILIZED COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Revised 9-1-65

COMPANY YPR LEASE 1 WELL NO. 1 DATE 2-26-80

LOCATION: Unit 1 Section 1 Township 26 N Range 26 E

L 4810 H 111 L/H 0.638 G 30.898 % CO₂ 2.40 % N₂ 4.92 % H₂S 1.11

d 2.04113 F_i 100 GH 30.898 P_{CT} 672.15 T_{CT} 256.5

TABLE IX & X

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LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Q _m																							
2 T _w (W.H. °R)	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522	522
3 T _s (B.H. °R)	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562	562
4 T = (T _w + T _s)	542.5	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543	543
5 Z (Est.)	.858	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863	.863
6 T _Z	465.47	468.61	471.32	473.28	475.28	477.28	479.28	481.28	483.28	485.28	487.28	489.28	491.28	493.28	495.28	497.28	499.28	501.28	503.28	505.28	507.28	509.28	511.28
7 GH/T _Z	6.5930	6.5487	6.5110	6.4463	6.3772	6.3072	6.2372	6.1672	6.0972	6.0272	5.9572	5.8872	5.8172	5.7472	5.6772	5.6072	5.5372	5.4672	5.3972	5.3272	5.2572	5.1872	5.1172
8 e ^s (Table XIV)	1.2805	1.2784	1.2766	1.2720	1.2672	1.2624	1.2576	1.2528	1.2480	1.2432	1.2384	1.2336	1.2288	1.2240	1.2192	1.2144	1.2096	1.2048	1.1999	1.1951	1.1903	1.1855	1.1807
9 1-e ^s (Table XIV)																							
10 P _i	1011.2	972.2	932.2	841.2	682.2																		
11 P _i 2/1000	1022.5	945.17	869.0	710.65	472.22																		
12 F _i (Table XV)	0.24720	0.24558	0.24417	0.24061	0.23540																		
13 F _c = F _i T _Z		4.594	4.1308	4.689	4.793																		
14 F _c Q _m		0.31	0.416	0.600	0.8196																		
15 L/H (F _c Q _m) ²		0.09	0.173	0.360	0.672																		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		0.02	0.04	0.08	0.14																		
17 P _w ² = P _i ² + F _w			945.19	569.34	707.70	472.38																	
18 P _s ² = e ^s P _w ²	1309.3	1208.3	1109.4	900.5	597.75																		
19 P _s	1144.2	1099.2	1053.3	948.8	773.1																		
20 P = (P _i + P _s)	1022.7	1035.7	998.7	895.0	730.2																		
21 P _r = (P/P _{cr})	1.6025	1.540	1.476	1.321	1.086																		
22 T _r = (T/T _{cr})	1.532	1.523	1.523	1.5245	1.5245																		
23 Z (Table XI)	0.855	0.863	0.868	0.880	0.900																		