

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY PHOENIX RESOURCES CO. LEASE BUCKHORN CANYON WELL NO. 1 DATE 5-14-79

LOCATION: Unit 0 Section 18 Township 19 Range 20

L 5855 H 5855 L/H 1.00 G .660 % CO₂ 3.0 % N₂ 1.0 % H₂S 0

d 1.995 F_r .018231 GH 3864 P_{cr} .669 T_{cr} 368
FOURTH RATE

LINE	FIRST RATE			SECOND RATE			THIRD RATE			FOURTH RATE		
	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL	1ST TRIAL	2ND TRIAL
1 Q _m	0.070	0.070	0.120	0.120	0.120	0.120	0.157	0.157	0.157	0.135	0.135	0.135
2 T _w (W.H. °R)	535	535	536	536	536	536	537	537	537	537	537	537
3 T _s (B.H. °R)	602	602	602	602	602	602	602	602	602	602	602	602
4 T = ($\frac{1}{T_w} + \frac{1}{T_s}$)	568.5	568.5	569	569	569	569	569.5	569.5	569.5	569.5	569.5	569.5
5 Z (Est.)	0.940	.939	.945	.944	.944	.944	.940	.951	.955	.975	.975	.975
6 TZ	534.4	533.8	537.7	537.1	537.1	537.1	535.3	541.6	543.9	555.3	555.3	555.3
7 GH/TZ	7.230	7.239	7.186	7.194	7.194	7.194	7.218	7.134	7.104	6.958	6.958	6.958
8 c ^s (Table XIV)	1.311	1.312	1.309	1.310	1.310	1.310	1.311	1.307	1.305	1.298	1.298	1.298
9 1-e ^s (Table XIV)	0.237	0.238	0.236	0.237	0.237	0.237	0.237	0.235	0.234	0.230	0.230	0.230
10 P _t	403.2	403.2	373.2	373.2	373.2	373.2	324.2	324.2	184.2	184.2	184.2	184.2
11 P _t ² /1000	162.6	162.6	139.3	139.3	139.3	139.3	105.1	105.1	33.9	33.9	33.9	33.9
12 F _r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231
13 F _c = F _r TZ	9.743	9.732	9.803	9.792	9.792	9.792	9.759	9.874	9.916	10.124	10.124	10.124
14 F _c Q _m	0.682	0.681	1.176	1.175	1.175	1.175	1.531	1.550	1.339	1.367	1.367	1.367
15 L/H (F _c Q _m) ²	0.465	0.464	1.384	1.381	1.381	1.381	2.348	2.403	1.792	1.868	1.868	1.868
16 F _w = L/H (F _c Q _m) ² (1-e ^{-s})	0.110	0.110	0.326	0.327	0.327	0.327	0.556	0.565	0.419	0.430	0.430	0.430
17 P _w ² = P _t ² + F _w	162.7	162.7	139.6	139.6	139.6	139.6	105.6	105.7	34.3	34.3	34.3	34.3
18 P _s ² = e ^s P _w ²	213.3	213.5	182.8	182.9	182.9	182.9	138.5	138.1	44.8	44.5	44.5	44.5
19 P _s	461.8	462.1	427.5	427.7	427.7	427.7	372.1	371.6	211.7	210.9	210.9	210.9
20 P = ($\frac{P_t + P_s}{2}$)	432.5	432.6	400.4	400.4	400.4	400.4	348.2	347.9	197.9	197.6	197.6	197.6
21 P _r = (P/P _{cr})	0.65	0.65	0.60	0.60	0.60	0.60	0.52	0.52	0.29	0.29	0.29	0.29
22 T _r = (T/T _{cr})	1.54	1.54	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
23 Z (Table XI)	.939	.939	.944	.944	.944	.944	.951	.951	.975	.975	.975	.975