WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC. LEASE Moore FQ WELL NO. 1 DATE 3-17-77

LOCATION: Unit F Section 19 Township 20S Range 25E

L 9385 H 9385 L/H ____ G 0.593 % CO_2 0.76 % N_2 0.29 % H_2S Nil

3/8" - 9315 (3.98) - 37073
-2 3/8 = 65 (18.25) 1188
- 4 = 5 (7.32) 39

d ~~avg~~ 2.1372 F_r 0.014839 GH 5565 P_{cr} 676 (TABLE IX & X) T_{cr} 355 (TABLE IX & X)

LINE 9385 38300		1	2	3	4		1	2	3	4
1 Q_m	S1	1.000	1.369	1.795	2.464	S1			1.795	
2 T_w (W.H. °R)	522	529	527	524	520					
3 T_s (B.H. °R)	625	624	623	622	620					
4 $T = (\frac{T_w + T_s}{2})$	573.5	576.5	575	573	570	573.5			573	
5 Z (Est.)	.851	.848	0.841	.832	.821	0.852			0.833	
6 TZ	488.048	488.872	483.575	476.736	467.97	488.622			477.309	
7 GH/TZ	11.4026	11.3833	11.508	11.6731	11.8918	11.3892			11.659	
8 e^S (Table XIV)	1.5336	1.5325	1.5396	1.5492	1.5620	1.5328			1.5484	
9 $1-e^{-S}$ (Table XIV)		0.3475	0.3505	0.3545	0.3598				0.3542	
10 P_t	3038.2	2929.2	2824.2	2688.2	2427.2	3038.2			2685.2	
11 $P_t^2/1000$	9230.66	8580.2	7976.1	7226.42	5891.3	9230.66			7226.42	
12 ~~F_r (Table XV)~~ $S = .0375 \frac{GH}{T_z}$	.42760	.42689	.43155	.43914	.44594	.42709			.43922	
13 $F_c = F_r TZ$		7.2544	7.1758	7.0743	6.9442				7.0828	
14 $F_c Q_m$		7.2544	9.8236	12.6985	17.110				12.7136	
15 $L/H (F_c Q_m)^2$		52.6259	96.504	161.25	292.77				161.636	
16 $F_w = L/H (F_c Q_m)^2 (1-e^{-S})$		18.288	33.525	57.163	105.339				57.251	
17 $P_w^2 = P_t^2 + F_w$		8598.5	8009.93	7282.58	5996.64				7283.67	
18 $P_s^2 = e^S P_w^2$	14156.14	13179.2	12352.09	11283.7	9366.75	14148.8			11278.23	
19 P_s	3762.5	3630.0	3511.7	3359.1	3060.5	3761.5			3358.5	
20 $P = (\frac{P_t + P_s}{2})$	3400.3	3279.6	3167.9	3023.7	2743.9	3399.8			3023.2	
21 $P_r = (P/P_{cr})$	5.03	4.852	4.686	4.473	4.059	5.03			4.472	
22 $T_r = (T/T_{cr})$	1.6155	1.6239	1.6197	1.6141	1.6056	1.6155			1.6141	
23 Z (Table XI)	0.852	0.848	0.841	0.833	0.821	0.852			0.833	

One copy to be filed in District Office (Work copy acceptable)