

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Pennco Oil Corporation LEASE Allied Com WELL NO. 2 DATE 7/24/75

LOCATION: Unit B Section 27 Township 20 S Range 27 E

L 2651 H 2651 L/H 1.000 G .688 % CO₂ -- % N₂ -- % H₂S --

d 1.995 F_i .018231 GH 1824 P_{cr} 669 T_{cr} 385

1st Rate

LINE	1st Trial	2nd Trial									
1 Q _m	.243	.243									
2 T _w (W.H. °R)	536	536									
3 T _s (B.H. °R)	543	543									
4 T = ($\frac{T_w + T_s}{2}$)	539.5	539.5									
5 Z (Est.)	.960	.789									
6 TZ	517.9	427.5									
7 GH/TZ	3.522	4.267									
8 e ^s (Table XIV)	1.141	1.174									
9 1-e ^s (Table XIV)	0.124	0.148									
10 P _t	1141.2	1141.2									
11 P _t ² /1000	1302.3	1302.3									
12 F _r (Table XV)	.018231	.018231									
13 F _c = F _r TZ	9.442	7.794									
14 F _c Q _m	2.294	1.894									
15 L/H (F _c Q _m) ²	5.3	3.6									
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	0.7	0.5									
17 P _w ² = P _t ² + F _w	1303.0	1302.8									
18 P _s ² = e ^s P _w ²	1486.7	1529.5									
19 P _s	1219.3	1236.7									
20 P = ($\frac{P_t + P_s}{2}$)	1180.3	1189.0									
21 P _r = (P/P _{cr})	1.76	1.78									
22 T _r = (T/T _{cr})	1.40	1.40									
23 Z (Table XI)	.789	.786									