

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Atlantic Richfield LEASE Hondo 22 State WELL NO. #1 DATE 06/01/78

LOCATION: Unit H Section 22 Township 19S Range 28E

L 10374 H 10374 L/H 1.000 C .667 % CO₂ % N₂ % H₂S
d 2.441 F_r .010763 GH 6919 P_{cr} 670 T_{cr} 378
TABLE IX & X TABLE IX & X

LINE	RATE	I	RATE	II	RATE	III	RATE	IV
1 Q _m	.164	.164	.244	.244	.341	.341	.365	.365
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	638	638	638	638	638	638	638	638
4 T = ($\frac{1}{2}T_w + T_s$)	586	586	586	586	586	586	586	586
5 Z (Est.)	.848	.832	.859	.845	.892	.880	.920	.910
6 TZ	497	488	503	495	523	516	539	533
7 GH/TZ	13.924	14.190	13.745	13.973	13.237	13.417	12.834	12.975
8 e ^s (Table XIV)	1.686	1.703	1.674	1.689	1.643	1.654	1.618	1.627
9 1-e ^s (Table XIV)	.407	.413	.403	.408	.391	.395	.382	.385
10 P _t	1278.2	1278.2	1148.2	1148.2	842.2	842.2	608.2	608.2
11 P _t ² /1000	1633.8	1633.8	1318.4	1318.4	709.3	709.3	369.9	369.9
12 F _r (Table XV)	.010763	.010763	.010763	.010763	.010763	.010763	.010763	.010763
13 F _c = F _r TZ	5.348	5.248	5.418	5.329	5.626	5.550	5.803	5.739
14 F _c Q _m	.877	.861	1.322	1.300	1.918	1.893	2.118	2.095
15 L/H (F _c Q _m) ²	.769	.741	1.748	1.691	3.680	3.582	4.486	4.389
16 F _w = L/H (F _c Q _m) ² (1-e ^{-S})	.313	.306	.704	.690	1.440	1.416	1.714	1.691
17 P _w ² = P _t ² + F _w	1634.1	1634.1	1319.1	1319.1	710.7	710.7	371.6	371.6
18 P _s ² = e ^s P _w ²	2754.5	2782.3	2208.6	2227.5	1167.6	1175.5	601.3	604.5
19 P _s	1659.7	1668.0	1486.1	1492.5	1080.5	1084.2	775.5	777.5
20 P = ($\frac{1}{2}P_t + P_s$)	1468.9	1473.1	1317.2	1320.3	961.4	963.2	691.8	692.8
21 P _r = (P/P _{cr})	2.19	2.19	1.97	1.97	1.43	1.43	1.03	1.03
22 T _r = (T/T _{cr})	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
23 Z (Table XI)	.832	.832	.845	.845	.880	.880	.910	.910