

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_{sc})

G-122D
Adopted 9-1-65

COMPANY Water Pkty Corp LEASE Rio Rancho X Com WELL NO. 1 DATE 12/1/58

LOCATION: Unit N Section 35 Township 18S Range 35E

L 900S H 4003 L/H 10.00 G 0.545 % CO₂ 0.68 % N₂ 0.45 % H₂S Nil

d 1.9962 F_r 0.14892 GH 5300 P_{CF} 674 T_{CF} 354

TABLE IX & X

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		1.019	1.416	1.826	2.265																		
2 T _w (W.H. °R)	607	606	606	606	605																		
3 T _s (B.H. °R)	519	522	524	527	529																		
4 T = ($\frac{1}{2}T_w + T_s$)	563	564	565	566	567																		
5 Z (Est.)	1.817	1.839	1.857	1.877	1.892																		
6 TZ	475.17	473.20	472.9	468.00	471.74																		
7 GH/TZ	11.250	11.327	11.334	11.451	11.362																		
8 e ^s (Table XIV)	1.52065	1.5292	1.5296	1.5203	1.5312																		
9 1-e ^s (Table XIV)		0.5461	0.5462	0.5491	0.5469																		
10 P _i	2.1202	2.4342	2.873.4	2.038.2	2.746.2																		
11 P _i 2/1000	2.1202	8635.9	8370.6	8055.4	7552.6																		
12 F _r (Table XIV)	0.42300	0.42479	0.42503	0.42941	0.42605																		
13 F _c = F _r TZ		7.0469	7.10424	6.17706	7.0252																		
14 F _c Q _m		7.11808	4.472	12.775	17.268																		
15 L/H (F _c Q _m) ²		51.56	99.44	162.01	298.18																		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		17.15	34.4	56.6	103.4																		
17 P _w ² = P _i ² + F _w		8655.7	8405.0	5112.0	7656.0																		
18 P _s ² = e ^s P _w ²	14.060	13238	12856.3	12462.0	11722.9																		
19 P _s	375.00	3635.4	3585.6	3550.2	3423.9																		
20 P = ($\frac{P_i + P_s}{2}$)	3392.0	3280.8	3237.4	3184.2	3086.0																		
21 P _i = (P/P _{CF})	5004	4850	4506	472.1	4579																		
22 T _i = (T/T _{CF})	1.800	1.520	1.596	1.540	1.502																		
23 Z (Table XI)	1.844	0.839	0.827	0.871	0.832																		

$$Grav = \frac{100 \times \frac{1.014 \times 10^3}{1.014 \times 10^3}}{1 + \frac{5.55}{1000000}} = \frac{100000}{1000005.55} = 1.00000555$$

$$+R = \frac{1.67 \times 10^3}{1.014 \times 10^3} = 1.646$$

$$\begin{array}{r} 671.8 \quad 354.8 \\ .5 \quad .5 \\ \hline 671.1 \quad 354.0 \end{array}$$

$$\begin{array}{r} 671.8 \quad 354.8 \\ 2.8 \quad .5 \\ \hline 674.6 \quad 355.3 \end{array}$$