

WORKSHEET FOR CALCULATION OF ST. IC COLUMN WELLHEAD PRESSURE (P_w)

COMPANY YPC LEASE Rio Pecos KD Com WELL NO. 1 DATE 6-25-80
LOCATION: Unit N Section 2 Township 19S Range 25E
8982 H 8982 L/H 1.000 G 0.591 % CO₂ 0.60 % N₂ 0.26 % H₂S N.7
L 8982 d 2.448 F_r 0.0098 GH 5308 P_{cr} 723 T_{cr} 371
8982 (5.9385) = 53239
28 (5.466) = 433
19 (7.9316) = 53828

LINE	S1	1	2	3	4				
1 Q _m		1.587	2.194	3.024	4.311				
2 T _w (W.H. °R)	559	560	561	562	563				
3 T _s (B.H. °R)	607	606	606	605	605				
4 T = ($\frac{1}{T_w} + \frac{1}{T_s}$)	583	583	583.5	583.5	584				
5 Z (Est.)	0.821	.814	.811	0.805	.809				
6 T _Z	478.64	474.56	473.22	469.72	472.46				
7 GH/T _Z	11.090	11.185	11.217	11.300	11.235				
8 e ^s (Table XIV)	1.5159	1.5211	1.5229	1.5277	1.5240				
9 1-e ^s (Table XIV)		0.3426	0.3434	0.3454	0.3438				
10 P _t	2973.2	2837.2	2711.2	2506.2	2031.2				
11 P _t 2/1000	8839.9	8049.7	7350.6	6281.0	4125.8				
12 F _r (Table XV)	0.41586	0.41944	0.42063	0.42377	0.42131				
13 F _c = F _r T _Z		4.6507	4.6376	4.6033	4.6301				
14 F _c Q _m		7.3806	10.175	13.920	19.960				
15 L/H (F _c Q _m) ²		54.474	103.53	193.77	398.4				
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		18.7	35.6	66.9	137.0				
17 P _w ² = P _t ² + F _w		8068.4	7386.2	6347.9	4262.8				
18 P _s ² = e ^s P _w ²	13398.7	12272.8	11248.4	9697.7	6496.5				
19 P _s	3660.4	3503.3	3353.9	3114.1	2548.8				
20 P = ($\frac{P_t + P_s}{2}$)	3316.8	3170.2	3032.5	2810.2	2290.0				
21 P _i = (P/P _{cr})	4.5875	4.384	4.194	3.887	3.167				
22 T _i = (T/T _{cr})	1.5214	1.571	1.573	1.573	1.574				
23 T _i (Table XI)	1521	0.814	0.811	0.805	0.809				