

WORKSHEET FOR CALCULATION OF S₁ IC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Amplified 9-1-65

COMPANY

VF

LEASE

11-1-1-1

WELL NO.

1

DATE

3-25-50

LOCATION: Unit

Section

Township

Range

25E

L

600 ft

H

100

L/H

0.000

G

0.000

% CO₂

0.00

% N₂

1.00

% H₂S

N/A

23 Z

1000 ft

d

0.000

F_i

0.000

GH

0.000

P_{CT}

TABLE IX B X

T_{CT}

250

TABLE IX B 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		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 T _w (W.H. °R)	515	520	523	525	527																		
3 T _s (B.H. °R)	586	586	586	586	586																		
4 T = (T _w + T _s) / 2	550.5	553	554	555	555.5																		
5 Z (Est.)	0.41	0.25	0.17	0.11	0.07																		
6 TZ	407.42	419.61	421.59	422.90	423.46																		
7 GH/TZ	10.892	10.641	10.539	10.383	10.296																		
8 e ^s (Table XIV)	1.5045	1.4994	1.4949	1.4916	1.4884																		
9 1-e ^s (Table XIV)		0.3880	0.3265	0.3225	0.3158																		
10 P _i	1574.0	1636.0	1621.2	1515.2	1329.2																		
11 P _i 2/1000	3588.0	2843.0	2649.8	2295.8	1766.5																		
12 F _i (Table XV)	0.40844	0.39906	0.39580	0.38937	0.38870																		
13 F _c = F _i TZ		1.6359	1.7005	1.8005	1.9447																		
14 F _c Q _m		2.148	3.057	4.253	6.087																		
15 L/H (F _c Q _m) ²		4.83	9.348	18.089	37.05																		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		1.6	3.0	5.8	11.7																		
17 P _w ² = P _i ² + F _w		2840.0	2650.5	2301.6	1928.5																		
18 P _s ² = e ^s P _w ²		5397.3	4240.0	3935.6	3397.2	2597.3																	
19 P _s	2322.2	2059.1	1933.5	1843.1	1611.6																		
20 P = (P _i + P _s) / 2	2108.9	1892.9	1805.5	1679.2	1490.4																		
21 P _i = (P/P _{CT})	3.152	2.499	2.649	2.510	2.198																		
22 T _i = (T/T _{CT})	1.449	1.455	1.458	1.4605	1.462																		
23 Z (Table XI)	0.741	0.755	0.761	0.771	0.791																		