

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY

YPC

LEASE

Federal HQ

WELL NO.

1

DATE

7-26-77

LOCATION: Unit

N

Section

5

Township

215

Range

22 E

L 7992

H 7992

L/H

G 0.688

% CO₂

4.18

% N₂

1.30

% H₂S

N/I

$2\frac{3}{8}$ - $7916 / (3.98) = 31505.7$

$5\frac{1}{2}$ - $76 (23.93) = 1818.74$

7992

33324.4

F_i 0.01671

GH

5499

P_{cr} 685

T_{cr}

370

TABLE IX & X

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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	51	1142	1201	1264	1308	51																	
2 T _w (W.H. °R)	533	540	540	539	538																		
3 T _s (B.H. °R)	594	592	590	589	588																		
4 T = ($\frac{T_w + T_s}{2}$)	563.5	566	565	564	563																		
5 Z (Est.)	.780	.797	.792	.773	.785																		
6 TZ	439.53	451.102	436.18	435.992	441.955																		
7 GH/TZ	12.511	12.190	12.607	12.613	12.442																		
8 e ^s (Table XIV)	1.5987	1.5795	1.6044	1.6048	1.5945																		
9 1-e ^s (Table XIV)		0.3669	0.3767	0.3769	0.3729																		
10 P _t	2545.2	2363.2	2179.2	1937.2	1652.2																		
11 P _t 2/1000	6478	5584.7	4748.9	3752.24	2729.26																		
12 F _t (Table XV)	.68912	.45713	.47276	.47299	.46659																		
3 F _c = F _t TZ		7.538	7.2886	7.285	7.385																		
14 F _c Q _m		1.070	1.465	1.923	2.2746																		
15 L/H (F _c Q _m) ²		1.146	2.146	3.699	5.174																		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		0.42	0.81	1.39	1.93																		
17 P _w ² = P _t ² + F _w		5585.1	4749.7	3754.13	2731.69																		
18 P _s ² = e ^s P _w ²		10356.4	8821.7	7620.5	6024.6	4355.7																	
19 P _s		3218.1	2970.1	2760.5	2454.5	2089.0																	
20 P = ($\frac{P_t + P_s}{2}$)		2881.2	2666.6	2469.9	2195.9	1869.6																	
21 P _r = (P/P _{cr})		4207	389	3606	3205	2729																	
22 T _r = (T/T _{cr})		1.4987	1.5053	1.5027	1.500	1.4973																	
23 Z (Table XI)		.780	.797	.772	.773	.785																	