

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

C-122D
Revised 9-1-65

COMPANY Yates Petroleum Corp LEASE Cadbury EV WELL NO. 1 DATE 1-27-77

LOCATION: Unit N Section 30 Township 17S Range 26E

5075 H 8075 L/H 1.000 G 0.765 % CO₂ 1.74 % N₂ 1.15 % H₂S N.I.

1 1/2" - 60' (1.2) 1024 2.0306 F_i 0.16955 GH 6177.4 666.6 413 2.5 P_{cr} 672.5 T_{cr} 407
2 1/2" - 7150' (3.98) 1164 2.0306 F_i 0.16955 GH 6177.4 700 2.5 P_{cr} 672.5 T_{cr} 407

LINE	1	2	3	4		1	2	3	4
1 Q _m	S1	0.612	0.870	1.134	1.594	S1	0.612	0.870	1.134
2 T _w (W.H. GR)	522	523	523	522	522				
3 (B.H. GR)	595	591	587	585	585				
4 T = (W.H. GR) ²	553.5	557	555	553.5	553.5				
5 Z (E _{gr})	0.70	0.69	0.68	0.675	0.675				
6 T ₂	390.95	384.33	379.40	373.612	373.612				
7 GH/T ₂	15.801	16.073	16.368	16.534	16.534				
8 e ^s (Table XIV)	1.8095	1.8270	1.8473	1.8589	1.8589				
9 1-e ^s (Table XIV)		0.4527	0.4589	0.4620	0.4620				
10 P ₁	2255.2	2134.2	2060.2	1988.2	1865.2				
11 P ₁ Z ₁ 1000	5235.86	4554.81	4244.42	3952.94	3478.99				
12 P ₁ Z ₁ 1000 S	59253	60274	61381	62003	62003				
13 P ₁ = F ₁ T ₂		6.5163	6.3988	6.3346	6.3346				
14 P ₁ Q _m		3.983	5.567	7.1834	9.9909				
15 L ₁ (F ₁ Q _m) ²		15.90	20.991	51.602	99.414				
16 F _w = L ₁ / H (F ₁ Q _m) ² (1-e ^s)		7.20	14.22	23.84	45.93				
17 P _w = P ₁ Z ₁ + F _w		4562.0	4258.64	3976.78	3524.90				
18 P _w = e ^s P _w	4464.05	8234.79	7867.0	7392.44	6552.44				
19 P _s	3077.2	2887.0	2804.8	2718.9	2559.8				
20 P = (P ₁ + P _s)	2682.2	2510.6	2432.5	2353.6	2212.5				
21 P ₁ = (P/P _{cr})	3.989	3.733	3.617	3.500	3.290				
22 T ₁ = (T/T _{cr})	1.372	1.369	1.364	1.360	1.360				
23 Z (Table XI)	0.700	0.690	0.683	0.677	0.675				

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