

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

C-122D
Adopted 5-1-65

COMPANY

1/PC

LEASE

Shawnee Oil Co.

WELL NO.

1

DATE

8-21-80

LOCATION: Unit

T₂

Section

2

Township

5

Range

24 E

1. 2560

H 3640

L/H 10000

G 0.675

%CO₂

3.01

%N₂

5.08

%H₂S

1.1

2. 355 (5.458) = 21371.3

d 2.4474

F_i 1009304

GH 2464.3

5.23% H₂O

P_{CT}

839

T_{CT}

416

3. 645 (6.222) = 22702.7

LINE	C	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	-	0.428	0.584	0.777	1.075																			
2 T _m (B.H. °R)	534	542	546	549	551																			
3 T _s (B.H. °R)	554	554	553	553	552																			
4 T = (T _m + 1.5)	544	548	549.5	551	551.5																			
5 T (°R)	0.777	0.790	1.800	1.8125	1.841																			
6 T ₂	422.69	432.92	439.60	447.69	463.81																			
7 GH/G ₂	58300	5.6923	5.6058	5.5045	5.31315																			
8 e ² (Table XIV)	1.84437	1.23795	1.23395	1.2213	1.2205																			
9 1-e ² (Table XIV)		0.1922	0.1896	0.1865	0.1806																			
10 P ₂	1013.2	994.2	944.2	892.2	769.2																			
11 P ₂ 2/1000	1026.6	949.1	891.5	796.0	591.7																			
12 E = (T _m - 52.0375) / 100	0.21863	0.21346	0.21022	0.20642	0.19924																			
13 F ₂ = T ₂ T ₂		4.0279	4.090	4.1653	4.3153																			
14 F ₂ Q _m		1.7239	2.1386	3.2364	4.6389																			
15 L/H (F ₂ Q _m) ²		2.972	5.1705	10.475	21.52																			
16 F ₂ = L/H (F ₂ Q _m) ² (1.0 ⁻⁵)		0.6	1.1	2.0	3.9																			
17 P ₂ = P ₂ + F _w		949.7	892.6	798.0	595.6																			
18 P ₂ = e ² P ₂	1279.4	1175.7	1101.4	981.0	726.9																			
19 P ₂	1130.2	1034.3	1049.5	990.4	852.6																			
20 P = (P ₂ + P _s)	1071.7	1029.2	996.8	941.3	810.9																			
21 P ₂ = (P ₂ / P _{CT})	1.277	1.227	1.188	1.122	0.966																			
22 T ₂ = (T ₂ / T _{CT})	1.277	1.286	1.290	1.293	1.295																			
23 Z (Table X)	0.777	0.790	0.800	0.8125	0.841																			