

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_f & P_s)

~~ISURFACE~~ ~~EX~~ ~~OR~~ ~~XX~~ 4 th

Form C-122-E
Adopted 9-1-65

GULF OIL

COMPANY EXPLORATION & PROD. LEASE WHITE CITY PENN GAS WELL NO. COM. UNIT 3 #2 DATE 10/11/82

LOCATION: Unit Section 28 Township Range 26 E

L 10850 H 10850 L/H 1.000 G .576 % CO₂ 1.41 % N₂ .30 % H₂S

d 1.995 F_r .018231 Q_m 2.042 M² cfd (L/H) (F_r Q_m)² .001386 P_{cr} 672 T_{cr} 350

TABLE 1A & B

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	5425		10850						
2	GH		0	3124.8		6249.6						
3	37.5GH		0	117180		234360						
4	P _c or P _n		1923.2	2211.0	2204.4	2484.8	2477.6		P _s = 2475.2			
5	P _r		2.86	3.29	3.28	3.70	3.69					
6	T		534	588.5	588.5	643	643					
7	T _r		1.53	1.68	1.68	1.84	1.84					
8	Z		.781	.859	.859	.890	.890					
9	P/Z P/Z	4÷8	2462.5	2573.9	2566.2	2791.9	2783.8					
10	P/TZ	9÷6	4.6114	4.3737	4.3606	4.3419	4.3294					
11	(P/TZ) ² /1000	(10) 2/1000	.021265	.019129	.019014	.018852	.018744					
12	L/H(F _r Q _m) ²		.001386	.001386	.001386	.001386	.001386					
13	I ₁ + I ₂		.022651	.020515	.020400	.020238	.020130					
14	I _n	10÷13	203.585	213.195	213.753	214.544	215.072					
15	M=P _n ·P _n ⁻¹			288	281	280	273					
16	N=I _n + I _n ⁻¹			416.779	417.337	428.297	428.825					
17	M × N	15×16			117337		117167					
18	Σ (M × N)	Σ 17			117023							