

WORK SHEET FOR STEPWISE CALCULATION

(SURFACE) PRESSURE (P₁, P₂)
(MINOR) (P₁, P₂)
DATE 6-13-66

Standard Oil Company

COMPANY of Texas LEASE Bogle Flats Unit '16' WELL NO. 5 DATE 6-13-66

LOCATION: Unit F Section 16 Township 22S Range 23E

L 7225 H 7225 L/H 1.000 G .644 % CO₂ .52 % N₂ .89 % H₂S .38

d 1.995 F₁ 018231 Q_m 2.141 M₂ cfd (1/H) (F₁ Q_m)² .001524 P_{cr} .673 F_{cr} 368

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	3534		7068			Delta P = 3 (37.5 GH)			
2	GH		0	2275.90		4551.79			I _c + 4 I ₁ + I ₂			
3	37.5GH		0	85,346		170,692						
4	P _c or P _n		2305.2	2566.2	2567.2	2829.2	2827.2		= 3 (170,692)			
5	P _r		3.43	3.81	3.82	4.20	4.20		163,306 + 650,592 + 165,163			
6	T		532	561	561	591	591		= 512,076			
7	T _r		1.45	1.52	1.52	1.61	1.61		979.061			
8	Z		.739	.777	.777	.826	.826					
9	P/Z P/Z	4-8	3119.4	3302.7	3304.0	3425.2	3422.8		= 523.0			
10	P/TZ	9-6	5.8635	5.8872	5.8895	5.7956	5.7915					
11	(P/TZ)/1000 (10 ² /1000)		.034381	.034659	.034686	.033589	.033541		P _s = P _t + Delta P			
12	L/H(F ₁ Q _m) ²		.001524	.001524	.001524	.001524	.001524					
13		11 + 12	.035905	.036183	.036210	.035113	.035065		= 2303.2 + 523.0			
14	I _n	10-13	163,306	162,706	162,648	165,056	165,163					
15	M=P _n -P _{n-1}		261	262	262	262	260		= 2823.0			
16	N=I _n +I _{n-1}		326,012	325,954	327,704	327,311						
17	M x N	15 x 16	85,400	85,400	85,400	85,292						
18	Σ (M x N)	Σ 17	85,400			170,692						