

XXXXXX
PRESSURE
(P_c & P_w)

XXXXXXXXXXXX
(SURFACE)

WORK SHEET FOR STEPWISE CALCULATION

COMPANY Gulf Oil Expl. & Prod. Co. Marquadt Fed. WELL NO. 3 DATE 3-21-83

LOCATION: Unit _____ Section 12 Township 25s Range 26e

L 11.182 H 11.182 L/H 1.000 G .5766 % CO₂ 1.200 % N₂ .337 % H₂S _____

d 1.995 F_r 0.1823 Q_m 0 M²-cfd (L/H) (F_rQ_m)² 0 P_{cr} 672 T_{cr} 350

TABLE IS 8.9

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		11182	5591		0						
2	GH		6447.5	3223.8		0						
3	37.SGH		241,782	120,891		0						
4	P _c or P _n		4196.9	3786.1	3776.5	3357.1	3328.7	3329.9		Pw-3333.2		
5	P _r		6.25	5.63	5.62	5.00	4.95	4.96				
6	T		646	590	590	534	534	534				
7	T _r		1.85	1.69	1.69	1.53	1.53	1.53				
8	Z		.956	.901	.901	.810	.808	.808				
9	P/Z P/Z	4-8	4390.1	4202.1	4191.4	4144.6	4119.6	4121.2				
10	P/TZ	9-6	6.7958	7.1223	7.1041	7.7614	7.7146	7.7176				
11	(P/TZ) ² /1000	(10) 2/1000										
12	L/H(F _r Q _m) ²											
13	I ₁ + I ₂											
14	I _n	10-13	147.491	140.403	140.764	128.843	129.623	129.575				
15	M = P _n - P _{n-1}			411	420	419	448	447				
16	N = I _n + I _{n-1}			287.552	287.913	269.608	270.390	270.339				
17	M x N	15 x 16			121043			120717				
18	Σ (M x N)	Σ 17			120739							