

RATE NO. 3

COMPANY Monsanto Company LEASE Albert Federal WELL NO. 1 DATE 1-10-77

LOCATION: UNIT 0 SECTION 32 TOWNSHIP 19S RANGE 25E
L 9299 H 9299 L/H 1.00 G 0.595 % CO₂ 0.00 % N₂ 0.00 % H₂S 0.00
d 2.441 F_r 0.010763 Q_m 2.012 M² cfd (L/H) (F_r Q_m)² 0.000469 P_{cr} 672 T_{cr} 354

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	4650		9299						
2	GH		0	2766		5533						
	37.5GH		0	103742		207484						
4	P _c or P _n		2043.2	2312.2	2307.2	2571.2	2563.2					
5	P _r		3.04	3.44	3.43	3.83	3.81					
6	T		526	571	571	616	616					
7	T _r		1.49	1.61	1.61	1.74	1.74					
8	z		0.762	0.822	0.822	0.869	0.869					
9	P/Z P/Z		4 ÷ 8	2682.77	2812.90	2806.81	2957.44	2948.24				
10	P/TZ		9 ÷ 6	5.1003	4.9263	4.9156	4.8010	4.7861				
11	(P/TZ) ² /1000		(10 ² /1000)	0.026013	0.024268	0.024163	0.023050	0.022907				
12	L/H(F _r Q _m) ²		0.000469	0.000469	0.000469	0.000469	0.000469					
13	I _n		11 + 12	0.026482	0.024737	0.024632	0.023519	0.023376				
14	M = P _n - P _{n-1}		10 ÷ 13	192.594	199.145	199.561	204.135	204.747				
15	N = 1 _n + 1 _{n-1}			269	264	264	256	256				
16	M x N			391.739	392.155	403.696	404.307					
17	M x N		15 x 16		103529		103503					
18	Σ (M x N)		Σ 17		103529		207032					

Delta P = $\frac{3[207484]}{192.594 + 4[199.561] + 204.747} = \frac{622452}{1195.585} = 520.6$ P = 2043.2 + 520.6 = 2563.8