

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_w)

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_i)

COMPANY Belco LEASE James Ranch WELL NO. 15 DATE 10-24-84

LOCATION: Unit 0 Section 7 Township 23S Range 31E

L 14,300 H 14,300 L/H 1.00 G 1.592 % CO₂ 1.263 % N₂ 1.358 % H₂S

GH 8466 P_{CT} 675 T_{CT} 350

Sheet-1-N

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. °R)	534	534					
2	T _s (B.H. °R)	677	677					
3	T = $\frac{T_w + T_s}{2}$	606	606					
4	Z (Est.)	1.106	1.049					
5	TZ	669.7	635.2					
6	GH/TZ	12.64	13.32					
7	e ^s (Table XIV)	1.61	1.65					
8	P _f or P_w	6473.2	6473.2					
9	P _f ² or P _s ²	41902.3	41902.3					
10	P _c ² = P _f ² /e ^s or P _w ² = P _s ² /e ^s	26082.7	25419.4					
11	P _c or P_w	5107.1	5041.8					
12	P = $\frac{P_w + P_s}{2}$ or $\frac{P_c + P_f}{2}$	5790.2	5757.5					
13	P _r = (P/P _{CT})	8.58	8.53					
14	T _r = (T/T _{CT})	1.73	1.73					
15	Z (Table XI)	1.049	1.046					

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O. C. D.
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