

FLOODING BACK
 PNL SOURCE

 WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_{wf} , P_s)
 FROM KNOWN BOTTOM HOLE PRESSURE (P_{bhp} , P_s)

COMPANY OXY USA LEASE FED. AK WELL NO. 1 DATE 9-10-90

LOCATION: Unit E Section 24 Township 23S Range 23E

L 9993 H 9993 L/H 1.0000 G 1.585 %CO₂ 1.56 %N₂ 41 %H₂S -
 * 3NP 5N514.567 (G) GH 5825.92 P_{cr} 1626 T_{cr} 349
 * 10000000000 1.365 (162)

LINE	1	2	3	4	5	6	7	8
1	T _w (W.H. °R)	534	534	534	534	534	534	534
2	T _s (B.H. °R)	644	644	644	644	644	644	644
3	T _e ($\frac{T_w + T_s}{2}$)	589	589	589	589	589	589	589
4	Z (Est.)	.597	.879	.895	.876	.880	.862	.855
5	T _Z	528.3	517.7	507.1	505.9	518.3	520.0	502.5
6	GH/T _Z	11.026	11.252	11.651	11.251	11.240	11.421	11.028
7	e ^s (Table XIV)	1.512	1.524	1.573	1.527	1.524	1.534	1.502
8	P _s or P _s	3730.2	3730.2	3681.2	3681.2	3414.2	3414.2	2995.2
9	P _s or P _s	13914.3	13914.3	13571.2	13571.2	11656.8	11656.8	5851.8
10	P _c 2 = P _f 2/e ^s or P _w 2 = P _s 2/e ^s	9201.9	9124.3	8958.4	8872.3	7609.5	7609.5	4515.4
11	P _w or P _w	3033.4	3033.4	2992.2	2978.6	2965.0	2952.0	2390.0
12	P _c = ($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_s}{2}$)	3381.8	3395.4	3336.7	3330.6	3089.4	3089.4	2650.2
13	P _r = (P/P _{cr})	5.00	5.00	4.93	4.92	4.99	4.99	3.97
14	T _r = (T/T _{cr})	1.68	1.68	1.68	1.68	1.68	1.68	1.68
15	Z (Table XI)	.879	.879	.876	.876	.866	.866	.855