

Tabulation of Deviation Surveys --- B-R #4 Federal No. 1 --- Rig #2 - Job 3222

<u>Feet</u>	<u>Deviation</u>	<u>Feet</u>	<u>Deviation</u>
214'	3/4°	5134'	3-1/4°
462'	0°	5247'	3-1/2°
725'	3/4°	5403'	3-3/4°
920'	1/4°	5588'	3-1/4°
1172'	3/4°	5837'	2-1/4°
1426'	1/2°	6005'	2-1/2°
1677'	3/4°	6240'	2°
1920'	1/2°	6486'	1-3/4°
2169'	3/4°	6766'	1-1/4°
2449'	3/4°	7125'	2°
2700'	3/4°		
2949'	3/4°		
3447'	1°		
3695'	1-1/2°		
3942'	1-3/4°		
4192'	1-3/4°		
4441'	2°		
4660'	2-1/4°		
4909'	3°		
5031'	3-1/2°		

I certify that this Deviation Tabulation was supplied to me by Rowan Drilling-U.S. and is a true and correct tabulation of the Totco readings for this well.

Tommy Phipps
Tommy Phipps, Executive Vice President

THE STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me this 22 day of July, 1972, by TOMMY PHIPPS, Executive Vice President of Black River Corporation on behalf of said corporation.