

Deviation surveys taken on Santa Fe Energy Resources, Inc.'s Hackberry "19"
Fed Com #1 well in Eddy County, New Mexico:

<u>Depth</u>	<u>Degree</u>
217	1.00
469	2.00
480	2.75
673	3.00
761	3.25
853	3.00
946	2.00
1260	.25
1603	1.75
1758	2.75
1852	1.50
1946	1.00
2071	.50
2259	1.00
3255	.25
3585	1.50
3678	1.25
3832	1.25
4116	1.25
4495	1.25
4960	1.25
5451	1.50
5729	1.50
6189	2.00
6350	1.75
6558	1.50
6830	1.00
7302	1.75
7518	1.00
7802	1.75
8021	1.75
8130	1.00
8489	1.25
8832	2.00
8984	2.00
9206	2.25
9513	2.75
9731	2.00
10,075	3.00
10,294	2.25
10,635	1.00
11,222	1.75
11,346	1.25
11,830	2.25
12,240	2.00

I hereby certify that I have personal knowledge of the facts placed on this