

KEN REYNOLDS-PRESIDENT
GARY W. CHAPPELL-VICE PRESIDENT

DRILLING CO., INC. - OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88202-1498
505/623-5070 505/746-2719
ROSWELL, NM ARTESIA, NM

December 18, 1997

Ray Westall Operating
P.O. Box 4
Loco Hills, New Mexico 88255

RE: Rawhide Federal #1

Unit E 2310/W @ 660/W
24 - 195 - 32e

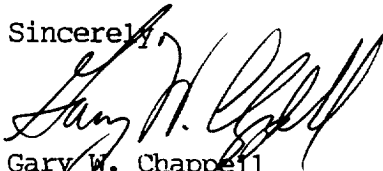
Gentlemen:

30-025-33769

The following is a Deviation Survey on the above referenced well located in Eddy County, New Mexico.

450' - 1/2°	2,437' - 2°	4,300' - 1°	6,692' - 1°
530' - 1/2°	2,570' - 2 1/2°	4,726' - 1°	7,108' - 1 1/4°
1,003' - 3/4°	2,720' - 2 1/2°	5,185' - 1°	7,314' - 1 1/2°
1,472' - 1°	3,381' - 1 1/2°	5,711' - 1°	7,750' - 1 3/4°
1,967' - 1/4°	3,865' - 1°	6,204' - 1°	

Sincerely,


Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF CHAVES)

The foregoing was acknowledged before me this 18th day of December 1997 by Gary W. Chappell.

MY COMMISSION EXPIRES

JUNE 20, 2000



NOTARY PUBLIC