



Artesia Fishing Tool Co., Inc.

Oil Well Drilling Contractors
PO Box 1370 Artesia, NM 88211-1370
505/746-6651 746-3518 fax 748-2205

July 10, 1997

Mack Energy Corporation
PO Drawer 960
Artesia, NM 88211-0960

RE: McIntyre E Federal #4
990' FSL & 2310' FWL
Sec. 20, T17S, R30E
Eddy County, New Mexico

Gentlemen:

The following is a Deviation Survey for the above captioned well.

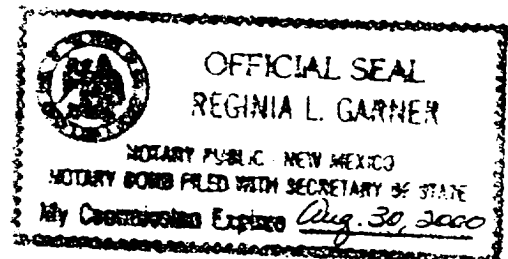
| DEPTH | DEVIATION | DEPTH | DEVIATION |
|-------|-----------|-------|-----------|
| 460' | 1/4 | 2714' | 2 1/2 |
| 505' | 1/4 | 2777' | 2 1/2 |
| 1003' | 1 3/4 | 2870' | 2 1/4 |
| 1503' | 1 3/4 | 3057' | 2 1/4 |
| 1987' | 2 | 3180' | 2 1/4 |
| 2119' | 2 | 3491' | 2 1/2 |
| 2331' | 2 1/4 | 3825' | 2 1/2 |
| 2430' | 2 1/4 | 4080' | 2 |
| 2491' | 2 1/4 | 4599' | 2 1/2 |
| 2553' | 2 1/2 | 5218' | 2 1/2 |
| 2616' | 2 1/2 | | |

Very truly yours,

Eddie C. LaRue
Vice President

STATE OF NEW MEXICO
COUNTY OF EDDY

The foregoing was acknowledged before me
this 10th day of July, 1997.

Notary Public

Serving Southeast New Mexico and West Texas Since 1974

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MAR 19 '98

BLM
ROSWELL, NM