

ARAPAHOE DRILLING CO., INC.

P. O. BOX 26687

ALBUQUERQUE, NEW MEXICO 87125

STEVE SCHALK
PRESIDENT

October 31, 1983

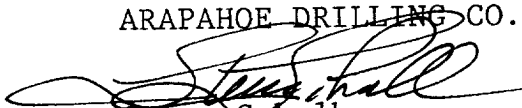
Operator: Chace Oil Co.

Jicarilla Apache 47-7 JV
Section 13, Township 23 North, Range 4 West
Rio Arriba County, New Mexico

DEVIATION RECORD

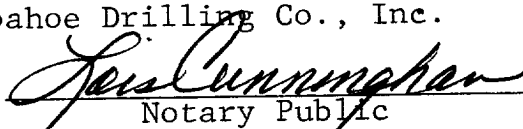
| DATE | DEPTH | DEVIATION |
|----------|-------|-----------|
| 9/28/83 | 228' | 3/4° |
| 9/29/83 | 727' | 1/2° |
| | 1253' | 3/4° |
| 9/30/83 | 1838' | 1° |
| | 2673' | 1° |
| 10/01/83 | 3093' | 3/4° |
| | 3630' | 3/4° |
| 10/02/83 | 4214' | 3/4° |
| 10/03/83 | 4624' | 3/4° |
| 10/04/83 | 5234' | 3/4° |
| 10/05/83 | 5725' | 3/4° |
| 10/06/83 | 6216' | 3/4° |
| 10/07/83 | 6694' | 1° |
| 10/08/83 | 7193' | 1° |
| 10/09/83 | 7610' | 1/4° |

ARAPAHOE DRILLING CO., INC.


Steve Schalk
President

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

Subscribed and sworn to before me, a Notary Public,
this 1st day of November, 1983, by Steve Schalk,
President of Arapahoe Drilling Co., Inc.


Notary Public

OFFICIAL SEAL
LOIS CUNNINGHAM
NOTARY PUBLIC - NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires: 3/7/87

RECEIVED
NOV 1 1983
COUNTY OF BERNALILLO
NEW MEXICO

