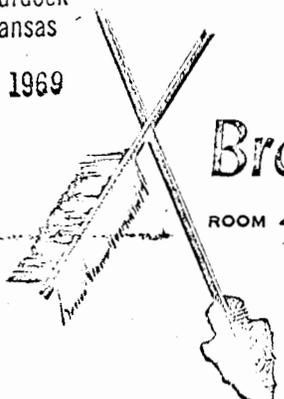


LOG. 311 30111
36 East Murock
Wichita, Kansas

22-12-14W

SEP 27 1969



Broken Arrow Drilling Company

ROOM 409 PETROLEUM BUILDING • TULSA, OKLAHOMA 74103 • AC 918-582-1181

DRILLER'S LOG

COMPANY: NATIONAL ASSOCIATED PETROLEUM
Petroleum Bldg.
Tulsa, Oklahoma 74103

NAME: Dora Kertman NO. 1

WELL NUMBER 3210

DATE: 3/14/69 COMP.: 3/21/69

CONTRACTOR: BROKEN ARROW DRILLING CO.

SEC. 22 TWP. 12S R. 14W

LOCATION: NE-SW-NE

COUNTY: Russel

ELEVATION 1776

PRODUCTION: D & A

CASING RECORD: 250' New 8-5/8"

CEMENT RECORD: 150 sacks cement
100#/A.C. - 200#/C.C.

| | |
|---------------|--------------|
| 0' - 45' | Soil |
| 45' - 257' | Clay & Shale |
| 257' - 940' | Sand & Shale |
| 940' - 1435' | Shale |
| 1435' - 2767' | Shale & Lime |
| 2767' - 3210' | Lime |
| T.D. 3210' | |



We hereby certify that the above is a true copy of the Driller's Log for the above described well.

BROKEN ARROW DRILLING COMPANY

By: Jack Roberts
Jack Roberts

Subscribed and sworn to before me this _____ day of _____, 1969

My Commission expires: _____