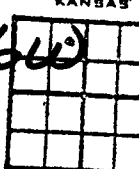


OCT 29 1971

31-16-26W



ROTARY DRILLING LOG

Operator: Thunderbird Drilling, Inc.
ARNOLD #5
NE NW Section 31-16S-26W
Ness County, Kansas

Contractor: Rains & Williamson
Oil Co., Inc.
Commenced: 8-20-71
Completed: 9-5-71
Casing: 10-3/4"/282'/225 sa
7"/4608'/250 sacks

EL 2662
81 BOPD - TRWT

Formations

Surface Clay	45'
Sand and Shale	140'
Shale	440'
Shale and Sand	1315'
Shale	1600'
Sand	1800'
Shale	2062'
Anhydrite	2104'
Shale and Lime	2625'
Lime and Shale	3772'
Lime	4566'
Lime and Chert	4697'
Chert and Lime	4740'
Chert	4750'
Rotary Total Depth	4750'

RECEIVED
STATE CORPORATION COMMISSION
SEP 10 1971
CONSERVATION DIVISION
Wichita, Kansas

We certify the above log is true and correct, to the best of our knowledge and belief.

RAINS & WILLIAMSON OIL CO., INC.



Log Tops

Anhy	2047
Heeb	3908
Tor	3931
Lans	3951
BKC	4285
Mem	4310
Pawn	4403
Ft Sc	4458
Cher	4484
Cher Sd	4540
Miss Ls	4559
Miss Dol	4560
Miss Os	4637
LTD	4750 4750