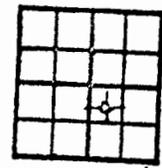


dy

9-22-21W
C NW SE

KANSAS



DRILLERS LOG

#1 Malone

CASING RECORD:
362.75' of used 8-5/8"
surface casing.

COMPANY: Thunderbird Drilling, Inc.

DESCRIPTION: C/NW SE
Section 9-22S-21W
Hodgeman County, Kansas

TOTAL DEPTH:
4368'

COMMENCED: January 22, 1972

COMPLETED: February 2, 1972

D. & A.

| <u>FORMATION</u> | <u>FROM</u> | <u>TO</u> | <u>REMARKS</u> |
|-----------------------------------|-------------|-----------|---|
| TOP Soil, Clay & Blue Shale | 0 | 399 | Ran 362.75' of used 8-5/8" surface casing; set and cemented at 368.75' with 200 sacks of common cement, 2% gel and 3% C. C. Plug down at 4:15 P. M. January 23, 1972. |
| Shale | 399 | 635 | |
| #1 Anhydrite | 635 | 642 | |
| Sand | 642 | 880 | |
| Red Bed, Shale & Shells | 880 | 1284 | |
| #2 Anhydrite | 1284 | 1313 | |
| Red Bed, Shale & Shells | 1313 | 1319 | |
| Small Rock, Red Bed, Shale & Salt | 1319 | 1641 | |
| Red Bed, Shale & Salt | 1641 | 1945 | |
| Shale, Broken Lime & Lime | 1945 | 2022 | |
| Lime & Shale | 2022 | 3269 | |
| Lime w/Shale Streaks | 3269 | 3715 | |
| Shale & Lime | 3715 | 4144 | |
| Lime | 4144 | 4346 | |
| Lime & Chert | 4346 | 4354 | |
| Chert, Shale & Lime | 4354 | 4362 | |
| | 4362 | 4368 | |



Rotary Total Depth 4368'

D. & A.

SAMPLE TOPS

| | |
|-------|------|
| ANHY | 1284 |
| HEEB | 3695 |
| LKC | 3755 |
| MARM | 4137 |
| FT SC | 4273 |
| MISS | 4341 |
| RTD | 4368 |

Plugged as follows: Plugged at 850' to 550' with 80 sacks of common cement, plugged at 350' to 250' with 30 sacks of common cement; plugged at 45' with 15 sacks of common cement. Plug down at 4:30 P. M. February 2, 1972.

STATE OF KANSAS)
) ss.
COUNTY OF BARTON)

I certify that this is a true and correct copy of the above log to the best of my knowledge.