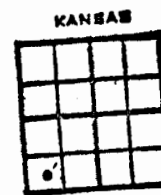


MAY 19 1972

Well File  
3-21-24W  
CSWSW

ROTARY DRILLING LOG

P 41 BOPD N/W  
CR 42 cher



Operator: Thunderbird Drilling Co., Inc.  
#1 VAN FLEET  
SW SW Section 3-21S-24W  
Hodgeman County, Kansas

Contractor: Rains & Williamson  
Oil Co., Inc.  
Commenced: 9-6-71  
Completed: 9-16-71 Elev. 2066' KB

Casing: 8-5/8"/258'/150 sacks  
5-1/2"/4385'/175 sacks

LOG TOPS

Formations

|                         |       |
|-------------------------|-------|
| Shale and Post Rock     | 264'  |
| Shale and Shells        | 315'  |
| Shale, Shells and Sand  | 1325' |
| Red Bed and Shale       | 1498' |
| Anhydrite               | 1532' |
| Shale, Red Bed and Lime | 1760' |
| Shale and Lime          | 2270' |
| Shale                   | 2405' |
| Lime and Shale          | 3020' |
| Shale and Lime          | 3245' |
| Lime and Shale          | 3870' |
| Lime                    | 4391' |
| Rotary Total Depth      | 4391' |
| DDTD                    | 4400  |

|              |      |
|--------------|------|
| Anhydrite    | 1488 |
| Heebner      | 3704 |
| Toronto      | 3724 |
| LKC          | 3753 |
| BKC          | 4090 |
| Marmaton     | 4130 |
| Pawnee       | 4210 |
| Ft Scott     | 4274 |
| Cherokee     | 4300 |
| Conglomerate | 4357 |
| Mississippi  | 4376 |
| DDTD         | 4400 |

DST # 1 4262-4311  
DST # 2 4329-67  
DST # 3 4357-4391



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

RAINS & WILLIAMSON OIL CO., INC.

Wilson Rains

Subscribed and sworn to before me, a Notary Public within and for the State of Kansas, County of Sedgwick, this 20 day of September, 1971.



Jeanine Durand Notary Public