D R I L L E R ' S L O G

FARM NAME: ~~RINER A #1~~ Bates Unit 5-1

LOCATION: S/2 SE NE Sec 36-30S-2W
Sumner County, Kansas

CONTRACTOR: SHAWVER ARMOUR, INC.

OWNER: BEARDMORE DRILLING CO. ELEVATION: 1308' KB

COMMENCED: January 28, 1967 COMPLETED: February 28, 1967

CASING RECORD: 429' 8-5/8" w/300 sacks cement - 1" w/50 sacks regular, 2% cc.
Set 5½" @ 3798' w/100 sacks common cement, plugged down @ 2:30 P.M. 2-28-67.

FORMATION:		TOPS:	
Top soil & Shale	220	T Kansas City	3063
Shale & Shells	370	B Kansas City	3314
Anhydrite	437	T Mississippian Chert	3717
Lime & Shale	1200	Mississippian Lime	3723
Shale	1700	Simpson Sand	4171
Shale & Lime	2490		
Lime & Shale	2695		
Shale & Lime	2750		
Sand	2860		
Lime & Shale	3010		
Shale	3063		
Lime	3385		
Lime & Shale	3703		
Shale & Lime	3716		
Mississippian	3728		
Core #1	3728-3743		
Mississippian	3790		
Lime	4156		
Simpson	4172		
Simpson sd	4178		
Simpson	4189		
Rotary Total Depth	4189		

STATE OF KANSAS)
) SS
SEDGWICK COUNTY)

I, JAMES M. ARMOUR, do hereby certify that the above log is a true and correct copy of the above captioned well as shown on the daily drilling reports.

SHAWVER-ARMOUR, INC.

By James M. Armour
James M. Armour

Subscribed and sworn to before me this 21st day of March, 1967.

My commission expires Dec. 29, 1967

Marjorie Hall
Marjorie Hall, Notary Public