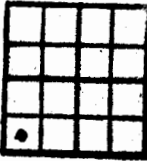


DRILLERS LOG

2-32-30W KANSAS

COTTRELL NO. 1



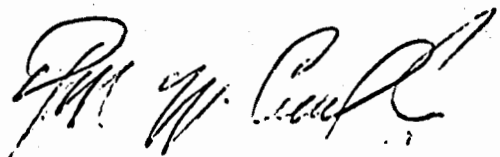
CASING RECORD:	OPERATOR: W. C. Pickens	DESCRIPTION:
8-5/8" @ 1574'	CONTRACTOR: Sage Drilling Co.	C SW SW
w/700 sax cement		Sec. 2-32S-30W
4 1/2" @ 5181' w/100 sx	COMMENCED: September 1, 1970	Meade County, Kansas
TOTAL DEPTH:		ELEVATION: 2762' KB
5677'	COMPLETED: September 14, 1970	P 18 B0 + 20 BW/Marm

<u>FORMATION</u>	<u>FROM</u>	<u>TO</u>	<u>REMARKS</u>
			LOG TOPS:
Top Soil & Sand	0	525	Chase 2722
Red Bed	525	681	Council Grove 3146
Red Bed & Sand	681	1307	Admire 3308
Shale	1307	1553	Heebner 4366
Anhydrite	1553	1674	Toronto 4411
Shale	1674	1950	Lansing 4528
Shale & Lime	1950	2515	Kansas City 4776
Shale	2515	2521	Marmaton 5124
Shale & Lime	2521	2645	Atoka 5406
Lime	2645	2853	13 Finger 5549
Shale & Lime	2853	3087	Morrow 5590
Lime & Shale	3087	3302	Mississippi 5624
Lime	3302	3531	
Lime & Shale	3531	4904	Upon reaching total
Lime	4904	5013	depth W. C. Pickens
Lime & Shale	5013	5060	turned the well to
Lime	5060	5254	Helmly & Prather Oil
Lime & Shale	5254	5340	Corporation to operate
Lime	5340	5525	4 1/2" pipe was set at
Lime & Shale	5525	5613	5187' and was cemented
Lime	5613	5677	with 100 sacks.

DST (1) 5107-5151'

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

SAGE DRILLING CO., INC.

By 
T. M. McCaul, Jr.



and sworn to before me this 15th day of September, 1970.

