

21-21-13W

BERGMAN DRILLING, INC.

State Geological Survey
WICHITA, BRANCH

DRILLERS LOG

Re: Stone C # 1
C SW SW SE Section 21-21S-13W
Stafford County, Kansas

OPERATOR: Cardinal Energy Co., Inc.
CONTRACTOR: Bergman Drilling, Inc.
COMMENCED: January 2, 1980
COMPLETED: January 13, 1980
TOTAL DEPTH: 3711' Set 291' 8 5/8" w/275 sx

0	70	Sand - Hard Sand
74	94	Pyrite
94	103	Pyrite & Sand
103	300	Sand
300	430	Clay Sand Red Bed
430	1830	Shale & Shells
1630	1830	Shale - Lime
1830	1927	Shale & Lime
1927	2105	Shale & Lime
2105	2138	Broken Lime - Shale
2138	2950	Lime & Shale
2950	3158	Shale & Lime
3158	3295	Lime & Shale
3295	3420	Lime
3420	2421	K. C. Lime
3421	3488	Lime & Shale
3488	3545	Lime & Shale
3545	3615	Base K.C.
3615	3670	Lime - Viola
3670	3709	Arbuckle
3709	2711	Arbuckle
3711		Total Depth Set 3710' 5 1/2" w/125 sx

We certify that the above and foregoing
to be true and correct copy of the
drillers log on the # 1 Stone C, located
in Stafford County, Kansas, as revealed
by the records of Bergman Drilling, Inc.

