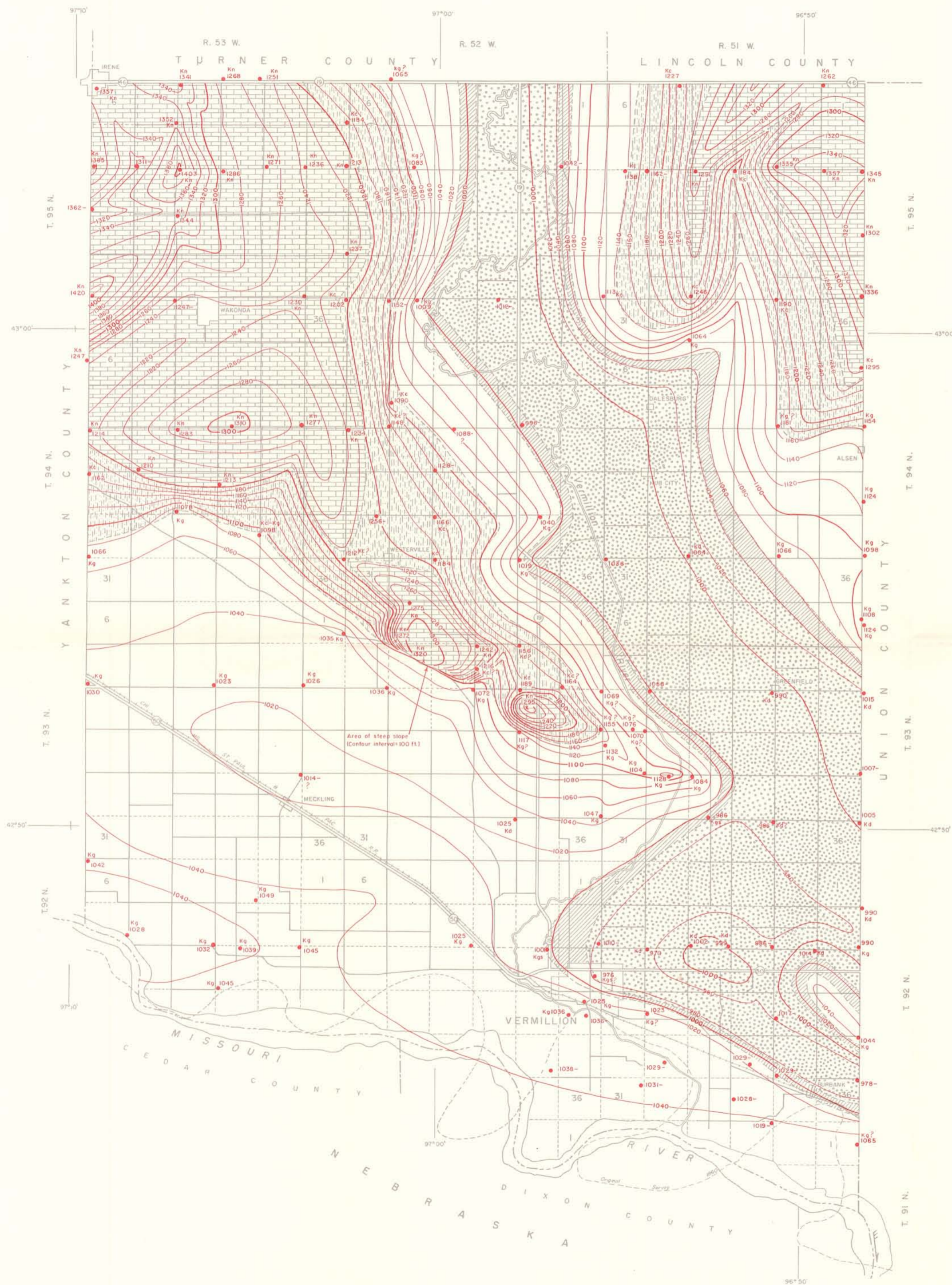




BEDROCK MAP OF  
 CLAY COUNTY,  
 SOUTH DAKOTA

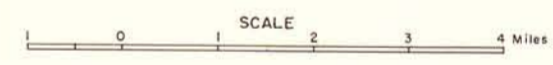
showing contours on the bedrock surface  
 and subcrop of the bedrock formations.



**EXPLANATION**

|                  |                     |            |
|------------------|---------------------|------------|
| UPPER CRETACEOUS | Kn                  | CRETACEOUS |
|                  | Niobrara Marl       |            |
|                  | Kc                  |            |
|                  | Carlile Shale       |            |
|                  | Kg                  |            |
|                  | Greenhorn Limestone |            |
|                  | Kgs                 |            |
|                  | Graneros Shale      |            |
|                  | Kd                  |            |
|                  | Dakota Group        |            |

- Control point (log available)  
Number is elevation above sea level.
- Control point where bedrock elevation is less than number shown.
- x Bedrock outcrop.
- Contour on bedrock surface.  
Number is elevation above sea level.
- - - Approximate boundary between bedrock formations
- 50 — Numbered Highways
- Roads and trails
- - - Section Lines
- - - Original Missouri River, Survey, 1860



by  
 C. M. Christensen  
 1967



SOUTH DAKOTA GEOLOGICAL SURVEY  
BULLETIN 19  
PLATE 3

## GEOLOGIC CROSS SECTIONS SHOWING STRATIGRAPHIC RELATIONS OF SUBSURFACE ROCKS OF CLAY COUNTY, SOUTH DAKOTA

for locations see Plate 1

EXPLANATION

|                 |                  |           |                     |                   |                    |
|-----------------|------------------|-----------|---------------------|-------------------|--------------------|
| Quaternary      | Recent           |           | Colluvium           |                   |                    |
|                 |                  |           | Alluvium            |                   |                    |
|                 | Late             | Wisconsin |                     | Overbank deposits |                    |
|                 |                  |           |                     | Loess             |                    |
|                 |                  | Early     | Illinoian           |                   | Outwash terrace    |
|                 |                  |           |                     |                   | Outwash            |
|                 |                  |           | Kansan              |                   | Till               |
|                 |                  |           |                     |                   | Alluvium-Colluvium |
|                 |                  |           |                     |                   | Overbank deposits  |
|                 |                  |           |                     |                   | Outwash            |
| Pre-Yarmouthian |                  | Till      |                     |                   |                    |
|                 |                  | Till      |                     |                   |                    |
| Cretaceous      | Upper Cretaceous |           | Niobrara Marl       |                   |                    |
|                 |                  |           | Carlisle Shale      |                   |                    |
|                 |                  |           | Greenhorn Limestone |                   |                    |
|                 |                  |           | Graneros Shale      |                   |                    |
|                 |                  |           | Dakota Group        |                   |                    |
|                 |                  |           | Dakota Group        |                   |                    |

(ox.) Oxidized  
(unox.) Unoxidized

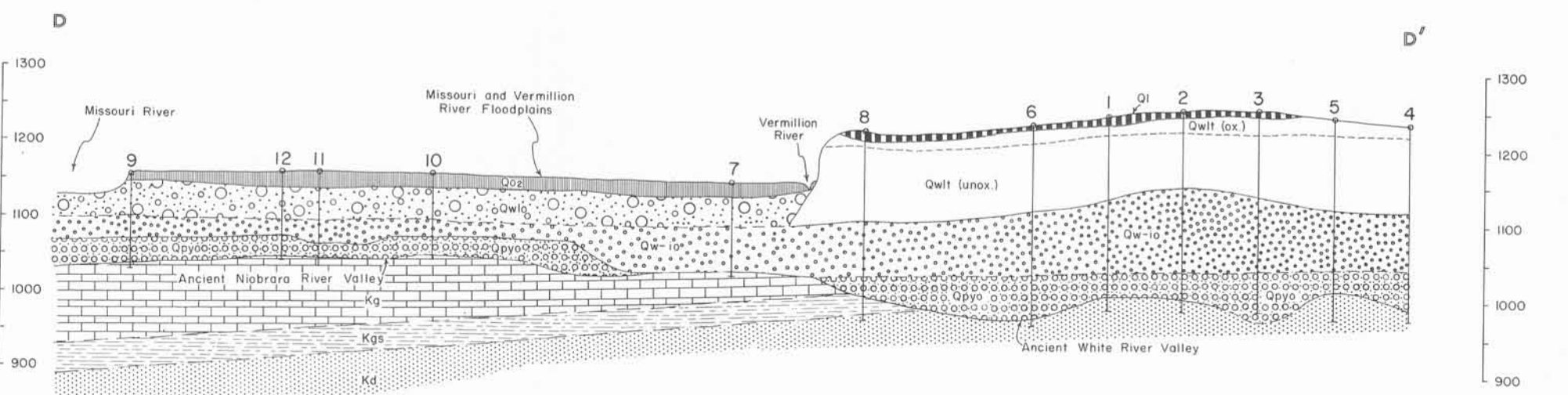
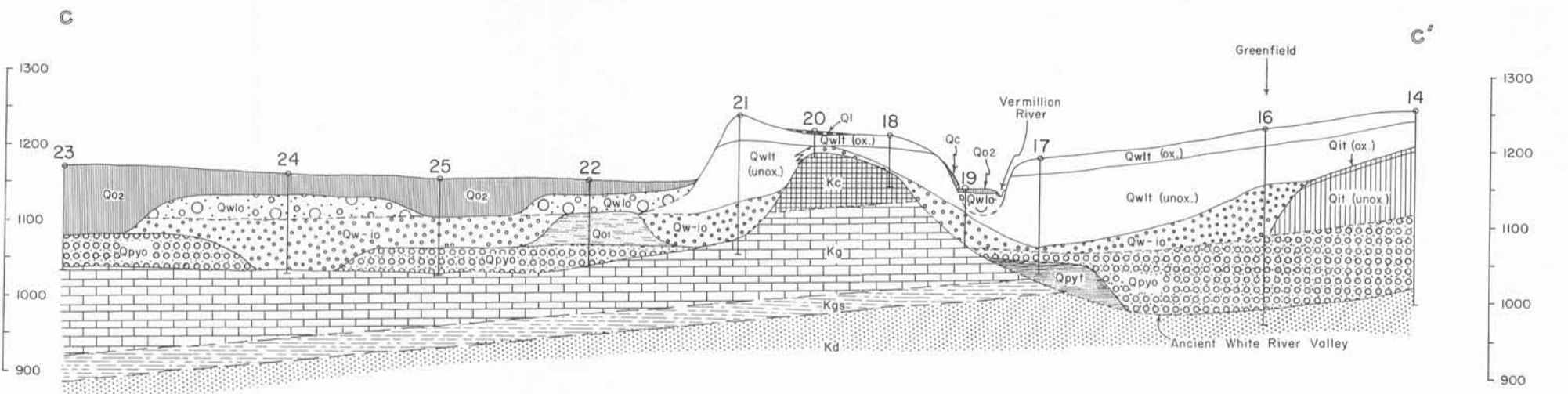
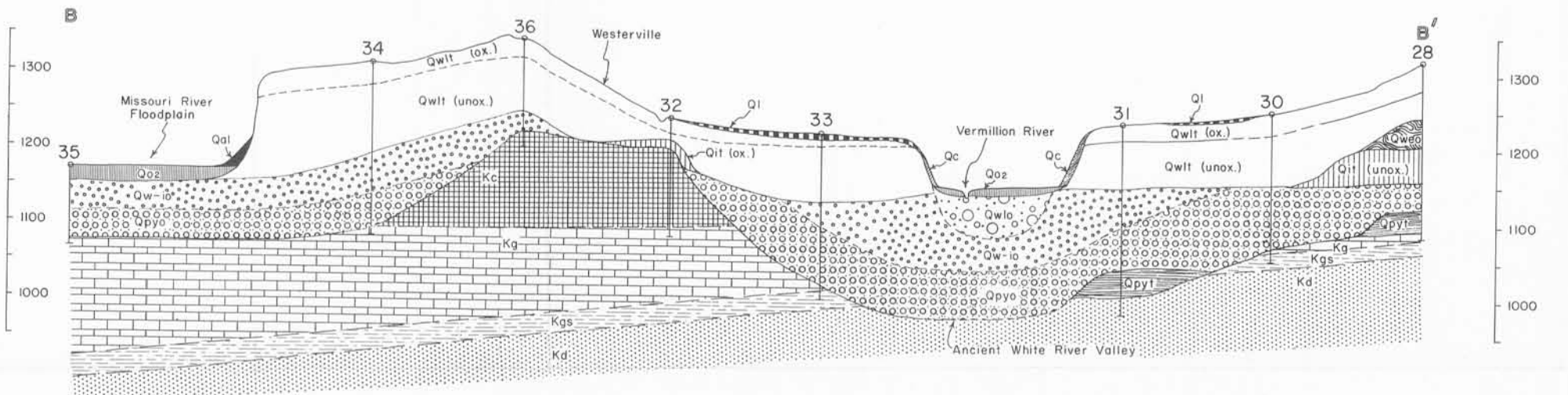
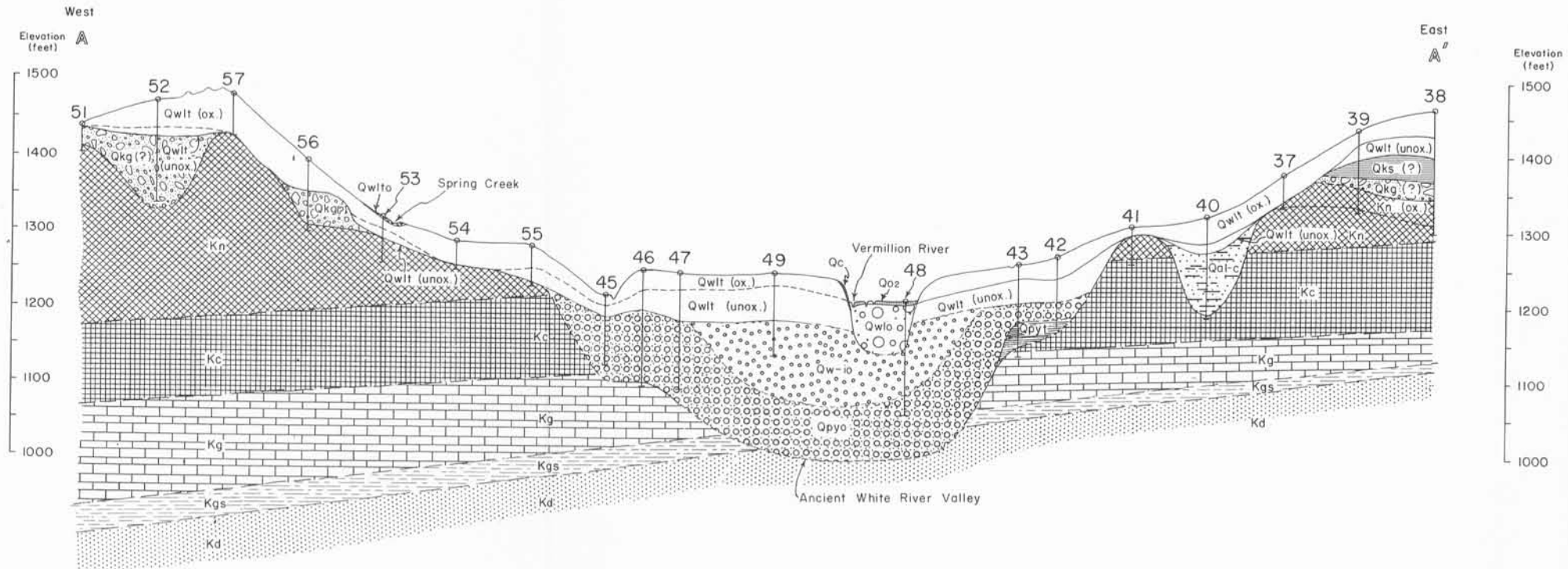
Test hole for which driller's log or sample log is available.  
(number refers to position of log in Appendix.)

Vertical exaggeration approximately X 53

Actual dip of bedrock formation is 15 feet/mile.

Scale  
1/2 0 1 2 3 4 Miles

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1967



MAP SHOWING THICKNESS  
OF MAJOR BURIED OUTWASH  
SEDIMENTS IN CLAY COUNTY,  
SOUTH DAKOTA



EXPLANATION

- 128 • Control point showing thickness of outwash sediments (log available)
- 85+ • Control point (number is minimum thickness)
- x Outcrop (bedrock)
- Lines of equal thickness, number is thickness (Contour interval = 10 feet)
- (20)— Numbered Highways
- Roads and trails
- - - Section lines
- - - Original Missouri River, Survey, 1860



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C. M. Christensen  
1967

