First Occurrence of Aquifer Materials in Faulk County, South Dakota

Department of Environment and Natural Resources
Division of Financial and Technical Assistance
Geological Survey
Aquifer Materials Map 30
Tom B. Rich, 2008

State of South Dakota
M. Michael Rounds, Governor

South Dakota Geological Survey
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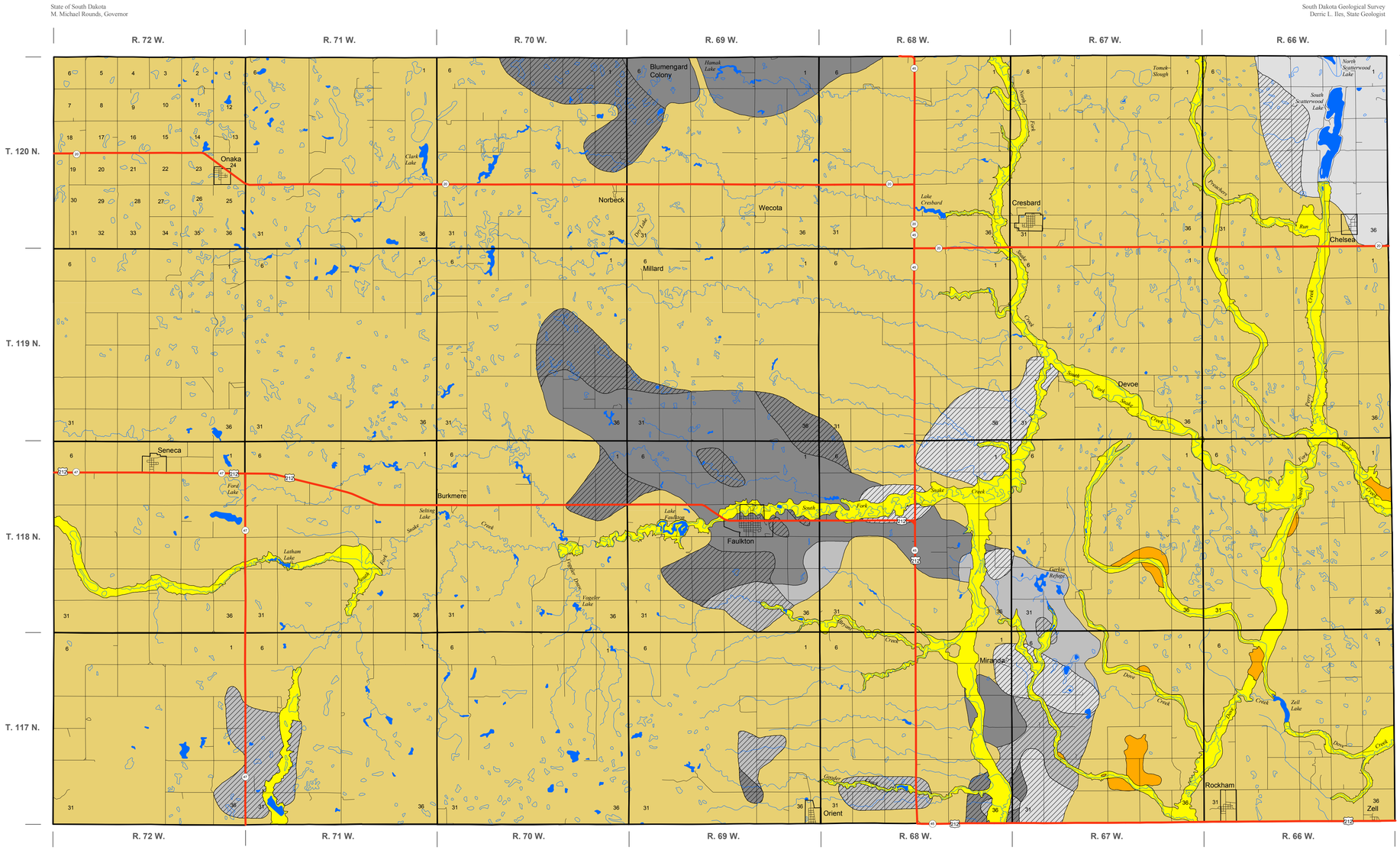

Explanation

This map is intended for use as a tool to aid in identifying areas underlain by aquifer material. The aquifer materials shown on this map are categorized below. This map does not show individual aquifers. There may be more than one type of aquifer material present in an area. However, only the aquifer material that would be first encountered is shown. Within the boundaries of any given map unit, there may be localized areas where aquifer material is absent. The thickness and permeability of aquifer material may vary significantly. Also, no attempt was made to distinguish between saturated and unsaturated material. Therefore, not all of the areas defined on this map may be an aquifer. Site-specific information should always be examined when making land management or water development decisions.

First occurrence is generally less than or equal to 50 feet below land surface

- **Alluvium:** Consists of clay and silt with minor amounts of sand and gravel; occurs at land surface
- **Sand and Gravel:** First occurrence is generally at land surface; may contain minor amounts of silt and clay
- **Sand and Gravel:** First occurrence is generally below land surface and is generally continuous in lateral extent; may contain minor amounts of silt and clay
- **Sand and Gravel:** First occurrence is generally below land surface and is probably discontinuous in lateral extent; may contain minor amounts of silt and clay

First occurrence is generally greater than 50 feet and less than or equal to 100 feet below land surface

- **Sand and Gravel:** Generally continuous in lateral extent; may contain minor amounts of silt and clay
- **Sand and Gravel:** Probably discontinuous in lateral extent; may contain minor amounts of silt and clay

First occurrence is generally greater than 100 feet below land surface

- **Sand and Gravel:** Generally continuous in lateral extent; may contain minor amounts of silt and clay
- **Sand and Gravel:** Probably discontinuous in lateral extent; may contain minor amounts of silt and clay
- **Dakota Formation:** Consists of interbedded sandstone, siltstone, and shale

Major highway
Road
Township boundary
River or stream
Lake
Slough or intermittent lake

For township section numbering system, see T. 120 N., R. 72 W.

This map was developed from lithologic logs and published reports. The major sources of information were:

Christensen, C.M., 1962, *Water supply for the city of Faulkton*: South Dakota Geological Survey Special Report 14, 23 p.

_____1973, *Sand and gravel resources in Faulk County, South Dakota*: South Dakota Geological Survey Information Pamphlet 6, 16 p.

_____1977, *Geology and water resources of McPherson, Edmunds, and Faulk Counties, South Dakota; Part I: Geology*: South Dakota Geological Survey Bulletin 26, 58 p.

Department of Environment and Natural Resources, Water Rights well completion report files.

Hamilton, L.J., 1974, *Major aquifers in McPherson, Edmunds, and Faulk Counties, South Dakota*: South Dakota Geological Survey Information Pamphlet 8, 12 p.

_____1982, *Geology and water resources of McPherson, Edmunds, and Faulk Counties, South Dakota; Part II: Water resources*: South Dakota Geological Survey Bulletin 26, 60 p.

South Dakota Geological Survey, Lithologic logs database.

The Geological Survey, Department of Environment and Natural Resources, engages in an ongoing data collection and interpretation process. An outcome of that process is to reflect those interpretations on maps such as this one. Reasonable efforts have been made to ensure that this map accurately reflects the source data used in its preparation. This map is date specific. As additional data become available, geologic interpretations may be revised and the map may be updated by the Geological Survey. This map should not be enlarged or otherwise used in an attempt to interpret more detail than can be seen at the 1:100,000 scale.

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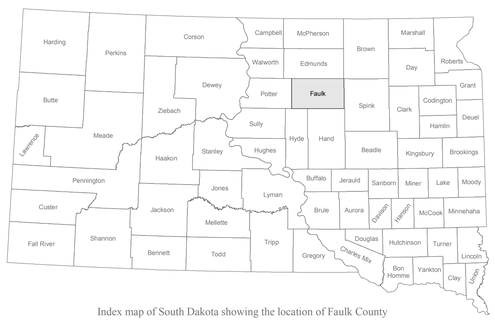
Digital cartography by B.A. Fagnan and L.D. Schulz
Layout edited by C.K. Odenbrett



Index map of South Dakota showing the location of Faulk County

Scale: 1:100,000

0 1 2 3 4 5 6 Miles

0 1 2 3 4 5 6 Kilometers

N
W E
S

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