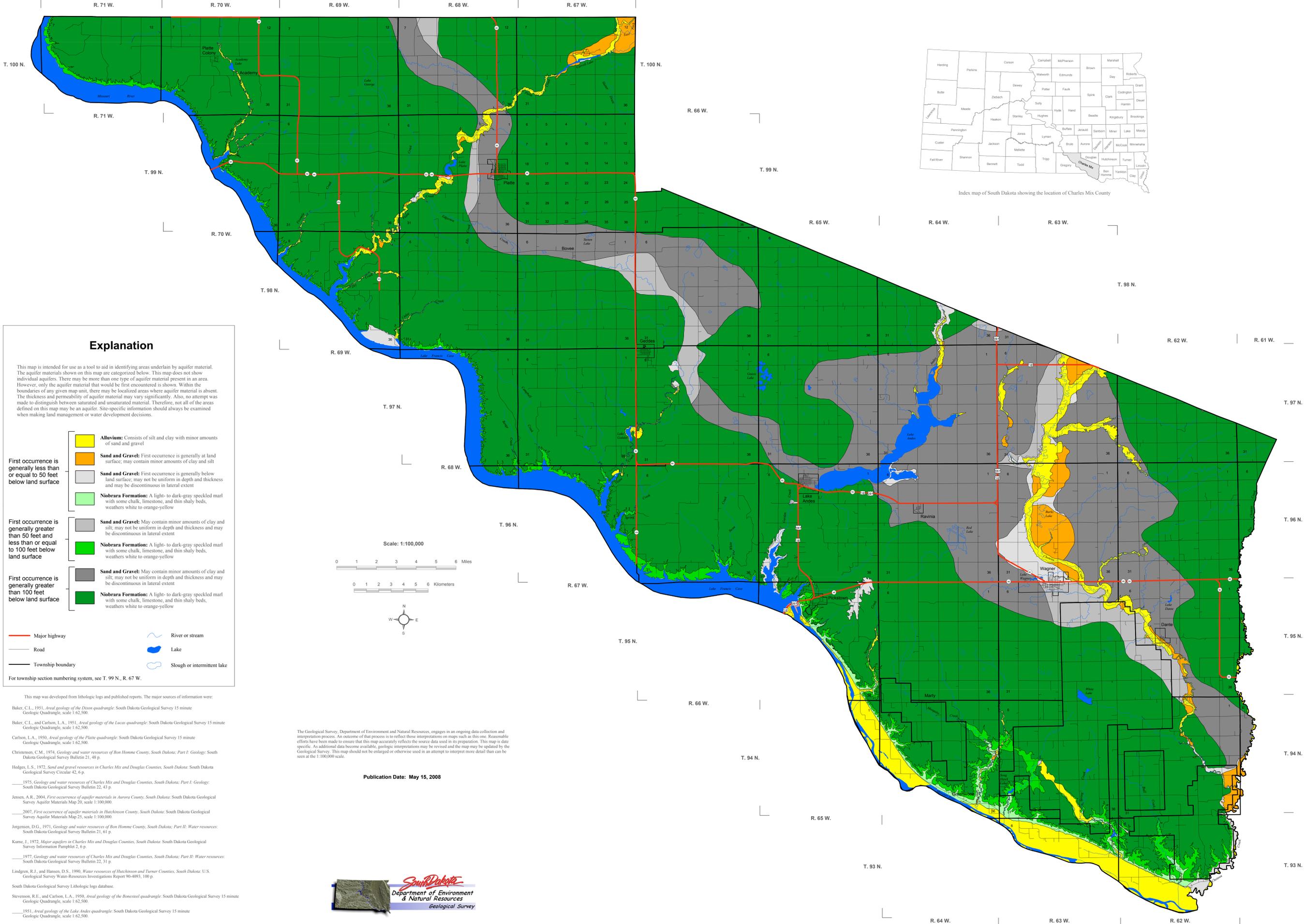


First Occurrence of Aquifer Materials in Charles Mix County, South Dakota

Department of Environment and Natural Resources
 Division of Financial and Technical Assistance
 Geological Survey
 Aquifer Materials Map 29
 Ann R. Jensen, 2008

State of South Dakota
 M. Michael Rounds, Governor

South Dakota Geological Survey
 Deric L. Iles, State Geologist



Index map of South Dakota showing the location of Charles Mix County

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.

- | | |
|---|---|
| <p>First occurrence is generally less than or equal to 50 feet below land surface</p> | <ul style="list-style-type: none"> Alluvium: Consists of silt and clay with minor amounts of sand and gravel Sand and Gravel: First occurrence is generally at land surface, may contain minor amounts of clay and silt Sand and Gravel: First occurrence is generally below land surface, may not be uniform in depth and thickness and may be discontinuous in lateral extent Niobrara Formation: A light- to dark-gray speckled marl with some chalk, limestone, and thin shaly beds, weathers white to orange-yellow |
| <p>First occurrence is generally greater than 50 feet and less than or equal to 100 feet below land surface</p> | <ul style="list-style-type: none"> Sand and Gravel: May contain minor amounts of clay and silt, may not be uniform in depth and thickness and may be discontinuous in lateral extent Niobrara Formation: A light- to dark-gray speckled marl with some chalk, limestone, and thin shaly beds, weathers white to orange-yellow |
| <p>First occurrence is generally greater than 100 feet below land surface</p> | <ul style="list-style-type: none"> Sand and Gravel: May contain minor amounts of clay and silt, may not be uniform in depth and thickness and may be discontinuous in lateral extent Niobrara Formation: A light- to dark-gray speckled marl with some chalk, limestone, and thin shaly beds, weathers white to orange-yellow |

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

For township section numbering system, see T. 99 N., R. 67 W.

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

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Hedges, I.S., 1972, *Sand and gravel resources in Charles Mix and Douglas Counties, South Dakota*, South Dakota Geological Survey Circular 42, 6 p.

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—, 1977, *Geology and water resources of Charles Mix and Douglas Counties, South Dakota; Part II: Water resources*, South Dakota Geological Survey Bulletin 22, 31 p.

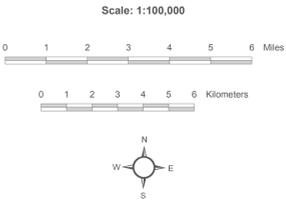
Lindgren, R.J., and Hansen, D.S., 1990, *Water resources of Hutchinson and Turner Counties, South Dakota*, U.S. Geological Survey Water-Resources Investigations Report 90-4093, 100 p.

South Dakota Geological Survey Lithologic logs database.

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