

Wisconsin Geological and Natural History Survey  
Miscellaneous Map 43 1997  
Groundwater Quality Investigation Maps  
of Polk County, Wisconsin  
Plate 3

A part of the Polk County Groundwater Resource Investigation,  
a joint project of the Wisconsin Geological and Natural History  
Survey and the Polk County Board of Supervisors.

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EXPLANATION

206 alkalinity of water sample, in mg/L (CaCO<sub>3</sub>)

GEOLOGIC MATERIALS CONTRIBUTING WATER TO WELL BY SOURCE OF DATA

FROM WELL CONSTRUCTOR'S REPORT <sup>1</sup>	INFERRED FROM HOMEOWNER INFORMATION OR WELL CONSTRUCTOR'S REPORTS FROM NEARBY WELLS
● sand, clayey sand, and/or gravel	● sand, clayey sand, and/or gravel
○ sandstone, or sandstone with some limestone, or sandstone with some shale	● sandstone, or sandstone with some limestone, or sandstone with some shale
● limestone or limestone with some sandstone	● limestone or limestone with some sandstone
● basalt or granite	● basalt or granite

<sup>1</sup>Well Constructor's Report represents the most probable match of a Wisconsin Department of Natural Resources Well Constructor's Report on file at the Wisconsin Geological and Natural History Survey to the water sample on the basis of information provided by the homeowner, the location of the well as reported by the well driller, land ownership information from plat books, and building locations as shown on U.S. Geological Survey 7.5-minute topographic maps.

NOTE: In areas where sampled wells with the same map symbol are too close together for the symbols to be clearly identified, one symbol is used, and the water-quality results are next to the combined symbol. However, if the map symbols are different, then two slightly separated symbols are shown, and water-quality results are next to each symbol.

Samples were collected June 1992 through August 1993 by M. Hopkins under the supervision of J. Timmons (Polk Land Conservation Department), and were frozen prior to analysis. Chemical analyses were performed July 1992 through March 1993 by K.L. Lund (Wisconsin Geological and Natural History Survey).

Analytical method used: sulfuric acid titration, using Bromocresol Green-Methyl Red Indicator and a HACH digital titrator.

Reference: HACH Company Digital Titrator Model 16900-01 Methods Manual, 1980, p. 34-39.

Reproducibility: ± 5 mg/L at ≤ 200 mg/L (CaCO<sub>3</sub>); detection limit, 2 mg/L (CaCO<sub>3</sub>).

This map is an interpretation of the data available at the time of preparation. Every reasonable effort has been made to ensure that this interpretation conforms to sound scientific and cartographic principles; however, the map should not be used to guide site-specific decisions without verification. Proper use of the map is the sole responsibility of the user.

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Plate 3 Laboratory Measurement of Alkalinity in mg/L (CaCO<sub>3</sub>)

