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.

Base map from U.S. Geological Survey County Map Series (Topographic), 1985.

Compiled by M.S. Bridson
Automation by K.C. Roushar
Edited by K.J. Cates

EXPLANATION

206 alkalinity of water sample, in mg/L ($CaCO_3$)

GEOLOGIC MATERIALS CONTRIBUTING WATER TO WELL BY SOURCE OF DATA

FROM WELL CONSTRUCTOR'S REPORT[§]	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

[§]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 Bromcresol 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 ($CaCO_3$); detection limit, 2 mg/L ($CaCO_3$).

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Wisconsin Geological and Natural History Survey
3817 Mineral Point Road, Madison, WI 53705-5100
☎608/262.1705 FAX 608/262.8086 http://www.uwex.edu/wgnhs/
James M. Robertson, Director and State Geologist

Scale 1:100,000

1 0 1 2 3 4 5 6 7 8 9 10 KILOMETERS

1 0 1 2 3 4 5 MILES

Plate 3 Laboratory Measurement of Alkalinity in mg/L ($CaCO_3$)